

Healthy Eating Habits Baseline Study for State Nutrition Action Plan (SNAP)



August 2008

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SUMA/Orchard Social Marketing, Inc.
200 East 30th Street
Austin, Texas 78705
Telephone 512-371-7585
Fax 512-391-0602

Acknowledgements

This report was prepared for the [Texas Department of State Health Services](#)
Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

Amanda Hovis
Nutrition Education Consultant

Mary Van Eck
Nutrition Coordinator & Branch Manager
DSHS Nutrition, Physical Activity and Obesity Prevention Program

Lindsay Rodgers
Obesity Prevention Specialist

Fredrick Higgins
Associate Commissioner
Texas Department of Agriculture Food and Nutrition

Elvia Andarza
Assistant Director
Texas Department of Agriculture Food and Nutrition

Rhonda Lane
Nutrition Coordinator for CACFP
Texas Department of Agriculture Food and Nutrition

Brenda J. Hampton, RD, LD,
Food and Nutrition Curriculum Development Specialist
Texas Department of Agriculture Food and Nutrition

Marc Wenli
Program Manager
Health and Human Services Commission
Office of Family Services/Community Education and Outreach Services

Kimberly Tolbert
Program Specialist IV
Health and Human Services Commission
Office of Family Services/Community Education and Outreach Services

Jenna Anding, PhD
Associate Department Head for Extension Nutrition and Food Science
Texas A&M AgriLife Extension

Judy Warren, PhD
Associate Director of Human Services
Texas A&M AgriLife Extension

Peter Murano, PhD
Director of Center for Obesity Research and Program Evaluation
Texas A&M AgriLife Extension

Michael McBurney, PhD
Department Head Nutrition and Food Science
Texas A&M AgriLife Extension

Marilyn Swanson, PhD RD
National Program Leader Maternal Child Health
Baylor Children's Nutrition Research Center

This report was prepared by
SUMA/Orchard Social Marketing, Inc.

Researchers and Authors

Cathy Schechter
Susan Poag
Melanie Susswein
David Dutwin, PhD
Susan Nenney
Julia Winston
Rachel Hubka

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Executive Summary



EXECUTIVE SUMMARY

Introduction

The Texas Department of State Health Services, in inter-agency committee (i.e., the State Nutrition Action Plan, or SNAP), contracted SUMA/Orchard Social Marketing, Inc. (SOSM) to conduct research statewide among parents of school children who receive Food Stamps, WIC, or nutrition assistance; child care providers who receive monies from USDA food assistance programs such as the Child and Adult Nutrition Assistance Program; and nutrition educators, including those working with WIC, Food Banks, and the Agricultural Extension Agency (AgriLife). The purpose of the research was to gather information to inform SNAP's efforts to unify nutrition messages across USDA programs, including a possible media campaign.

This report contains findings from focus groups conducted among low-income parents of children age ten or under and child care providers across Texas; statewide telephone surveys with child care providers and parents (including a subset of higher-income parents to be used as a basis of comparison); and interviews with nutrition education stakeholders. It also offers recommendations about nutrition messages for parents and child care providers, as well as modes of distribution.

Summary of Findings: Parents

SOSM conducted twelve focus groups with low-income parents of children age ten or under in Houston, San Antonio, the Rio Grande Valley, Austin, Fort Worth, and El Paso. Nine of the focus groups were conducted in English and three in Spanish (with Spanish-dominant parents). In addition, 1,603 parents answered telephone surveys about their families' nutrition and exercise habits; an additional 377 higher-income parents answered the survey to provide a basis of comparison. Lines of inquiry for focus groups included questions about general shopping and food preparation, perceptions of "healthy" foods, the challenges parents face in serving fruits, vegetables, and whole grains, and opinions about specific educational and media campaign materials.

Focus group participants indicated that in most cases, they know what is and what is not healthy fare for their families. However, they also vividly described the challenges and struggles they face in providing healthy foods to their families, and the richness of the anecdotes they shared provided additional validity to these everyday struggles. The themes that emerged became a topic of conversation throughout all focus group discussions. More specifically, they discussed challenges revolving around the following themes.

- Preparing multiple meals to satisfy various family members, including picky eaters
- Lack of practical knowledge, including knowledge of healthy foods, knowledge of how to cook them, and access to recipes
- Finding time to cook



- The cost of healthy foods (as well as the perception that “healthy” foods are more expensive)
- Managing dietary concerns caused by a health crisis such as obesity or diabetes

Those parents facing the challenge of obesity or obesity-related diseases within the family took the lead in articulating their struggles to change the way their families eat. A subtheme that emerged from these discussions, as well as from those involving managing children’s tastes and desires, is that mothers need to feel they have the knowledge, power, and security to manage both the health-related and disciplinary aspects of these issues. For that reason, the State of California’s *Champions for Change* advertisement, in which a mother states firmly, “This is MY kitchen,” tested particularly well. In contrast, the *Champions for Change* call to action to demand healthy foods at schools and in grocery stores fell somewhat flat.

Most tellingly, the most popular material tested with these parents was a cookbook entitled *Let’s Cook with Fruits and Vegetables*. Illustrated with attractive and colorful photographs, this bilingual (Spanish/English) cookbook offers a wide variety of recipes with few ingredients that can be prepared with relative ease. Almost without exception, parents expressed great enthusiasm for the book.

The telephone survey yielded a large volume of data reported in the body of this document. As might be expected, poverty is the leading indicator of whether or not parents report that their children have healthy diets. Respondents with incomes over the federal poverty level (FPL) are substantially more likely to eat fruits and vegetables at every meal and snack than are those with incomes under the FPL; almost twice as likely to have reduced-fat or low-fat milk; and a third more likely to eat wheat bread. However, those under the FPL are more likely to consume juice rather than soda. In fact, the findings are consistent across all available measures in the survey of socioeconomic status (SES), including education as well as FPL.

When parents who completed the telephone survey were asked about the challenges they face in feeding their children more fruits and vegetables, their responses echoed those of the focus groups, with taste and cost being cited most frequently as reasons for not serving more fruits and vegetables. However, unlike the focus group participants, who willingly admitted and lamented the difficulty of regularly providing healthy meals for their families, telephone respondents tended to say that their children receive the required amounts of fruits and vegetables, with vegetable consumption lagging slightly behind fruit consumption. This report offers a possible explanation for why so many telephone respondents made this claim—namely, the “social desirability factor,” whereby people over report healthy behavior in order to gain greater acceptance.

Another significant finding from the telephone survey with parents is that, while the responses of Hispanics overall do not differ significantly from those of other groups, a closer look indicates that there are significant differences between *Spanish-dominant* respondents and *English-dominant* respondents. The telephone survey corroborated findings from focus groups that the profile of Hispanics changes as they acculturate. Spanish-dominant respondents were significantly less likely than both Hispanic and non-Hispanic English-dominant respondents to say that they eat



two types of fruits per day, two types of vegetables per day, and white bread, and more likely to report that they drink reduced-fat milk. Hispanics who spoke Spanish during the survey were much more likely than both Hispanic and non-Hispanic English speakers to say that their families do not eat more fruits and vegetables because of taste or expense, but also because they are not in the habit or have concerns about quality. Descriptions of typical meals differed substantially across focus groups. This is strongly suggestive of a need to create different kinds of media and educational outreach materials for Spanish- and English-dominant audiences.

Across the spectrum of foods, no clear pattern emerged to indicate that those who eat or drink particular healthy foods or beverages would necessarily partake of other healthy foods or beverages. However, these findings do indicate a strong trend, in that children's dietary habits closely resemble those of their parents. Parents with good eating habits tend to have children with good eating habits, and parents with poor eating habits tend to have children who follow suit. In a related finding, parents who exercise more have a greater tendency than those who exercise less to report nutritious eating habits among their children.

Along the lines of family lifestyle, the telephone survey was consistent with past national and other studies (see footnoted references in the body of the report), in finding a strong and consistent correlation between eating habits and habits regarding television viewing during meals. While the link is probably not causal, meaning that watching television does not "cause" children to forgo fruits and vegetables, or vice versa, the link may point to some of the challenges parents described in focus groups, including having a lifestyle with much to do in too little time. Difficulty in planning healthy meals because of the challenges posed by work and busy school schedules, along with a lack of discipline in other areas of life, quite likely correlate to parents who have trouble engaging in healthy practices themselves, and who likewise have trouble getting their children to eat more formal meals, turn off the television, exercise, or eat healthy foods.

A final significant finding regarding the changing dietary habits of children as they grow from infants and toddlers to preschoolers and schoolchildren is indicated by a stair-step increase in the amount of soda children drink and a concurrent reduction in the amount of juice they drink as they get older. This age-related drop in fruit juice consumption and rise in the consumption of soda and other soft drinks is dramatic. For every eight children under the age of three who drink more juice than soda, only one child over age ten drinks more juice than soda.

Older children drink less 100% fruit juice than younger children, giving the impression that, as they become teens and young adults, their adoption of parental eating habits in the form of drinking more soda is practically a rite of passage.

Summary of Findings: Child Care Providers

Child care providers from the six locations listed below participated in focus groups during June and July 2008, allowing us to identify key issues to quantify.

- Midland/Odessa



- El Paso
- Austin
- San Antonio
- Houston
- Arlington (Dallas/Fort Worth)

Subsequently, a quantitative telephone survey was crafted to determine the prevalence of attitudes, perceptions, beliefs, and daily practices related to the Child Nutrition Program; reactions to proposed policy changes aligned with the Healthy Snack Initiative of the United States Department of Agriculture; and needs for training and technical assistance. The findings in this report are quantitative, with qualitative data inserted to further detail the findings.

Children attending child care in registered homes eat differently than children in larger child care centers. For example, though only marginally more likely to serve milk at every meal, homes are significantly more likely to serve bread and 20 percentage points more likely to serve whole wheat bread than child care centers. Perhaps a more startling finding is that, while home care providers reported serving fruits and vegetables at nearly every meal and snack, centers providers reported serving fruits and vegetables at only a little over half of their meals and snacks.

One of the strongest factors behind those differences is a significant difference in the way proprietors purchase food. Larger child care centers that depend on food wholesalers serve fewer fruits and vegetables than those that get food from discount “club” stores such as Sam’s or Costco, or home providers who shop in neighborhood supermarkets. Children at centers that use suppliers consume only two thirds of the amounts of fruits and vegetables eaten by children at centers of similar size that are not provided by a wholesale supplier. These children also eat significantly less bread, and when they do, significantly more of it is white bread.

Be that as it may, respondents from child care centers are significantly more likely than home providers to teach about healthy eating; they also tend to have the structure to teach about it through lesson plans, toys, and specific activities regarding healthy eating. Children in child care centers also tend to get more outside play and physical activity than children in homes.

Qualitatively, child care providers working in larger, more professionalized settings may belong to trade organizations, such as the Texas Association for the Education of Young Children, which offers standards, professional training, continuing education, and other advantages that may or may not be accessible to the registered home provider. In discussions about training needs, for example, these kinds of associations were mentioned by participants who were more obviously educated about child development and nutrition.

The SES of the owner offers an important clue as to the types of food they provide to the children in their care. While the survey did not directly measure SES, two proxy measures were taken: respondent education and whether or not the respondent accesses the Internet. These two measures correlate strongly with income; education is one dimension of SES. The effect of SES is mixed: High SES is associated with greater provision of bread at day care, specifically whole wheat bread, as well as higher rates of breast milk provided to infants by their mothers.



However, higher-SES respondents reported much lower rates of fruit and vegetable provision than did respondents with lower SES.

In focus groups, one of the more obvious manifestations of this disparity emerged in discussions about how respondents like to learn more about the nutritional values of foods to better plan for the children's meals and snacks. Often, one participant would discuss a recipe or idea found on the Internet, only to have another participant retort that not everyone has access to computers. These data show that registered home operators are significantly less likely to have access to computers or Internet than those operating larger child care centers.

The vast majority of respondents to the telephone survey said a policy change that would require a fruit or vegetable serving at every snack would be good for the children they serve. It should be noted that 65% of respondents said that they serve a fruit or vegetable at every snack already. Nevertheless, the proposed change garners widespread support among those who presently do not serve a fruit or vegetable at every snack.

Child care providers expressed a strong need for more training and tools, especially recipes, menus, activities, and lesson plans. In focus group discussions, participants across the state agreed that while they understand and approve of the policy changes resulting from the Healthy Snack Initiative in principle, they would need training to implement them. In particular, participants expressed strong concerns about the cost of implementing such a policy and said they would need suggestions, recipes, and other tips for providing snack variety and snacks that are filling. Medium to large center providers often cited training for cooks as a need, especially in light of the relatively high turnover in this position. Other training needs mentioned related to kitchen math, measuring, food storage, and avoidance of cross-contamination.

These findings also quantify anecdotal evidence gathered in focus groups that strongly suggest that training methods differ greatly between home and center providers. A significant number of home providers have limited or no Internet access and little time for off-site training. Limited budgets for training across the board call for more cost-effective local events or on-site visits for the hands-on training and demonstrations preferred by some providers. On the other hand, those with Internet access expressed a strong preference for Internet-based distance learning options. Both audiences could receive video or CD training to be viewed on television.

It is interesting to note that one significant finding suggests that those child care centers with partnerships for nutrition education, whether with WIC, AgriLife, Texas Agricultural Extension, or other government organizations, serve more fruits and vegetables than those without such partnerships. This points to the potential positive outcomes of promoting these partnerships by duplicating the collaborative efforts made at the State level within the SNAP group, at the regional or local level.

Finally, the child care providers who participated in the focus groups expressed widespread negativity about the way parents feed their children, and this attitude was significantly corroborated in the telephone survey. In all focus groups, discussions arose spontaneously among child care providers about the eating habits of the children when they are outside of their



care. They reported that many parents do not feed their children properly, citing a lack of time to do so. Many children come to school hungry or with “junk food,” such as candy, donuts, fast food, and other undesirable foods. Furthermore, providers often feel a responsibility to feed the children more on Fridays because they fear they will not eat well over the weekend. They also say parents are often surprised to learn about the vegetables and fruits their children willingly eat in child care. In conclusion, they expressed strong opinions that parents should be the target of the media campaign, not child care providers, who do their best with limited funds to offer what they view as healthy foods.

On average, 84% of child care providers said it is either “very” or “somewhat” true that their children are hungry when they arrive at the center. A significant majority also said that the only real meals children get are at the center; that parents do not give their children fruits and vegetables; and that children come to school with junk food. Importantly, respondents who said that at least half of their children are enrolled in government programs reported higher percentages of poor eating habits outside of the center, across every question asked in this battery.

In line with their frequently expressed mistrust of the nutrition provided by parents, participants in all focus groups requested training and technical assistance in educating parents. In addition to handouts, video presentations, and other giveaways for parents, providers suggested that they need assistance with more delicate interpersonal issues with parents, such as boundary-setting over what foods may be brought into the center, and working with them appropriately to properly train their children to eat nutritious foods.



Recommendations

RECOMMENDATIONS

Media Campaign

Findings from both child care providers and parents strongly point to a media campaign targeted primarily to parents of preschool- and school-aged children. The State of California's "Champions for Change" advertisement, geared specifically to mothers "reclaiming" their kitchens, tested extremely well among parents in focus groups. The resonant theme of empowerment to do what they know is best for their children's health, coupled with the knowledge and information provided in the cookbook, indicates that a campaign that entwines these two themes is likely to be successful.

Tone and Content. Campaign messages should use a friendly and encouraging tone to promote small changes that people can accomplish, thereby gaining confidence to move to the next step toward improving the health of their families. Most critically, all messages must address real concerns parents have about the high cost and amount of time it takes to prepare healthier meals. A series of television and radio advertisements should be created that offer tidbits of information regarding some of the following topics.

- When to change from whole milk to 2% milk or a lower-fat milk
- What whole grains are and why they're healthier
- The nutritional value of individual fruits and vegetables, as well as why they're important for growing children
- Appropriate portion sizes for all ages
- The importance of turning off the television and talking during mealtime
- Facts about childhood obesity
- Encouragement to exercise and move
- How to choose the right juices and beverages
- The benefits of purchasing local produce or shopping at farmers' markets

Distribution. The campaign must be multifaceted, with several entry points, to ensure that a varied audience receives the message.

- Use television for visual reinforcement of key messages. Preferred buys should target adult programming seen by mothers, particularly with the working mother in mind.
- Use radio spots for testimonials during morning and evening commute times.
- Provide recipes through mass mailings and distribution of print matter, showcasing photographs of children and parents enjoying healthy foods together.
- Target parents who use child care programs that benefit from USDA nutrition program funds.



- Target recipients of Food Stamps, TANF, Medicaid, and the Children's Health Insurance Program with envelope stuffers.

WIC

WIC's influence on the nutrition education of mothers of young children is well-documented. Child care providers, whether they have been on WIC or not, also acknowledge WIC's capability. WIC mothers seem to have more knowledge about healthy snacks than about how to prepare healthy meals. WIC nutritionists said that more food demonstrations are needed to help parents implement the things they learn. To that end, the media campaign described above should be augmented by WIC in some of the following ways.

- Educational videos in WIC waiting rooms about how to prepare fruits and vegetables
- Distribution of the cookbook *Let's Cook with Fruits and Vegetables*
- More targeted distribution of Zobey materials to both WIC parents and local child care providers
- Use of tools such as Zobey to model for parents during WIC classes, then distribute at the end of the class
- Food demonstrations at WIC clinics, along with tasting opportunities

Food Stamps Outreach

The results of the quantitative survey indicate that a very small percentage of parents have access to food demonstrations held at food banks or pantries. Considering the extent of the need for (and popularity of) food preparation demonstrations, these should be expanded to places that can accommodate more viewers. Some of these locations could include health fairs, school events (such as carnivals and parents' nights), grocery stores, and other neighborhood venues. Food Stamps outreach workers should also be co-opted to offer more training for child care providers in efforts by the Department of Agriculture and local workforce boards.

Food Stamp eligibility letters and documents sent through the mail or handed to recipients should include informational materials that complement the media campaign.

Child Care Providers

In communications with child care providers, whether they concern new policies or helpful information to enhance their provision of nutritious foods, two important facts must be considered.

- 1) The needs of providers vary substantially depending on whether they operate out of their homes or out of a center. Their needs will also vary according to how



they purchase food (e.g., from a wholesale supplier, from a discount buying “club” such as Sam’s or Costco, or from the neighborhood grocery store).

- 2) No one mode of communication will work with all providers. Many homes lack Internet access or travel budgets to attend training. Many centers with Internet access may prefer distance learning or indirect opportunities. Almost all providers have access to DVD and/or video players.

Child care providers have expressed strong concerns about the nutrition of the children in their care, and thus are an excellent target audience for the distribution of social marketing materials. They generally responded positively to the proposed policy changes to align with the Healthy Snack Initiative, but also expressed concerns about higher costs and the need for ideas about how to implement the policy changes in ways that provide varied, filling snacks, particularly among their afterschool students. Providers have resoundingly expressed a need for additional training in how to implement the policy changes if they should come about. To that end, training in some of the following areas in particular should play a major part in helping providers institute the changes.

- (Bilingual) training for cooks in storage, kitchen math, and recipe ideas
- Cost-effective ways to create a variety of healthy, filling snacks
- Non-offensive, educational ways to communicate nutrition information and rules to parents
- Understanding the nutritional value of various fruits and vegetables
- Ideas for teaching young children about nutrition

Modes of Training. Generally, three types of training possibilities emerged, depending on the day care facility’s size, Internet access, and budget.

- Localized events (conferences, food demonstrations, etc.)
- Distance learning opportunities provided via Internet or by CD-ROM
- Personal visits by trainers

The Texas Department of Agriculture might consider the role of its auditors and allow them opportunities to train to reduce deficits providers may show in their feeding practices.



Partnerships. The data show that partnerships with nutrition programs work in favor of children and child care providers. Recommendations for enhancing these opportunities might include the following.

- WIC outreach to parents in child care, combined with nutrition education for both child care providers and parents
- Distribution of the Zobey program to all child care providers with specific instructions about how to integrate the information into their current lessons. It should also include information about what other programs or materials are available through its sponsors (WIC and CACFP). Follow-up phone calls should be made to the centers to answer questions and encourage use. The calls could also serve as an opportunity to make evaluations.
- AgriLife/Extension agents and Food Stamps outreach workers should expand demonstrations to child care facilities, offering them to both childcare center providers, cooks and parents.
- Replication of the SNAP efforts to coordinate messages at regional and local levels to involve educators and leaders in a collaborative effort to generate earned media and organize the community around localized strategies to complement the media campaign.



Child Care Provider Findings



CHILD CARE PROVIDER FINDINGS

Summary of Findings

Child care providers from the following six locations participated in focus groups during June and July 2008 in order to identify key issues for quantification.

- Midland/Odessa
- El Paso
- Austin
- San Antonio
- Houston
- Arlington (Dallas/Fort Worth)

Subsequently, a quantitative telephone survey was crafted to determine the prevalence of attitudes, perceptions, beliefs, and daily practices related to the Child Nutrition Program; reactions to proposed policy changes aligned with the Healthy Snack Initiative of the United States Department of Agriculture; and needs for training and technical assistance. The findings in this report are quantitative, with qualitative data inserted to further detail the findings. Italics denote verbatim quotes by focus group participants; all statistical tables reflect results of the telephone surveys of 714 child care providers. Demographic characteristics of respondents follow.



Provider Profile

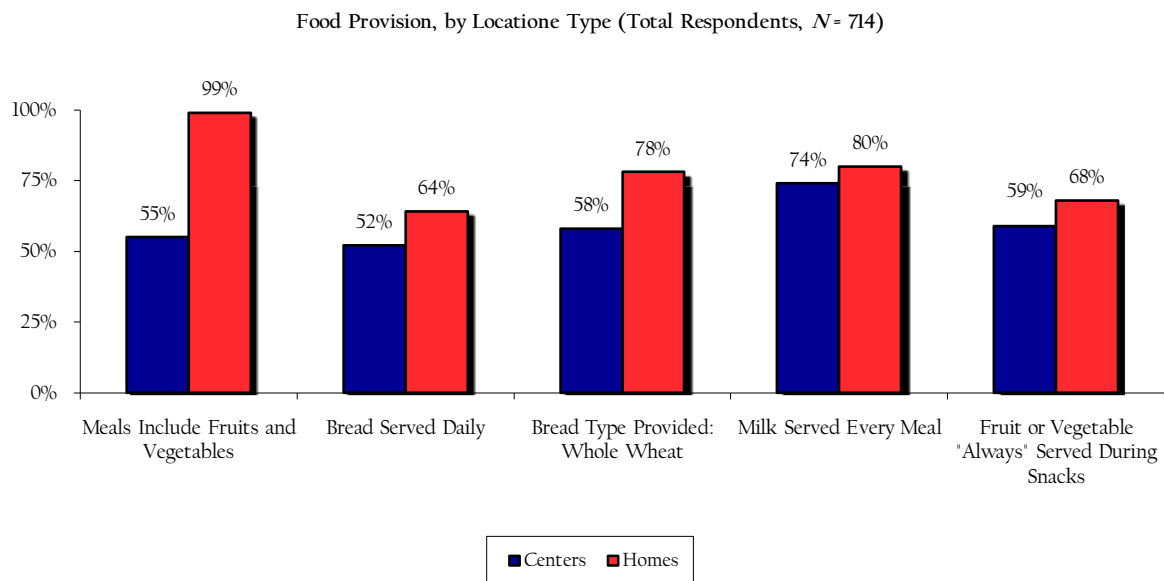
	Number of Respondents	Percentage of Total Respondents
<u>LOCATION TYPE</u>		
Home	444	62
Center	270	38
Single location center	188	26
Two or more centers	82	12
All centers in TX	71	10
Not all centers in TX	11	2
<u>NUMBER OF CHILDREN SERVED AT FACILITY</u>		
Fewer than 12	437	61
13-50	93	13
51-100	124	17
101+	60	9
<u>% OF CHILDREN IN GOV'T PROGRAMS</u>		
0%	175	25
1-25%	160	22
25-50%	107	15
50-75%	73	10
75-100%	94	13
Don't know	105	15
<u>OWN CHILD IN YOUR CHILD CARE</u>		
Yes	191	27
No	523	73
<u>CHILD CARE SERVES CHILDREN UNDER 1 YEAR OF AGE</u>		
Yes	389	55
No	325	45
<u>RESPONDENT AGE (years)*</u>		
18-34	117	16
35-44	197	28
45-54	198	28
55+	177	25
<u>RESPONDENT EDUCATION*</u>		
High school or less	236	33
Some college	306	43
College degree or more	152	21
<u>RESPONDENT ACCESS TO INTERNET</u>		
Yes	593	83
No	121	17

* Numbers in these categories do not sum to 714 respondents (100%) because some respondents refused to answer.



Child care providers working out of homes have a substantially different “food profile” than do providers at child care centers.

Children attending child care in registered homes eat differently than children in larger child care centers. For example, though only marginally more likely to serve milk at every meal, homes are significantly more likely to serve bread and 20 percentage points more likely to serve whole wheat bread than child care centers. Perhaps a more startling finding is that, while home care providers reported serving fruits and vegetables at nearly every meal and snack, center providers reported serving fruits and vegetables at only a little over half of their meals and snacks.



Qualitative data gathered from focus groups indicate that these differences may be accounted for by the different ways providers shop, based on the number of children served. Providers at smaller day care centers and registered home providers shop at discount “club” stores such as Sam’s or Costco, or clip coupons and shop in their neighborhood grocery stores, sometimes as often as two or three times per week. The following quotes reflect the perspectives of some of the small home operators on feeding children.

I make everything fresh. I’m from Mexico so most of my food is Mexican food. They love for me to make arroz con leche with pineapple. They love it.

Right now I have eight kids, ten months to eight years old. The most popular snack is fresh fruit, pineapples, watermelon, peaches. They love peaches and avocado.

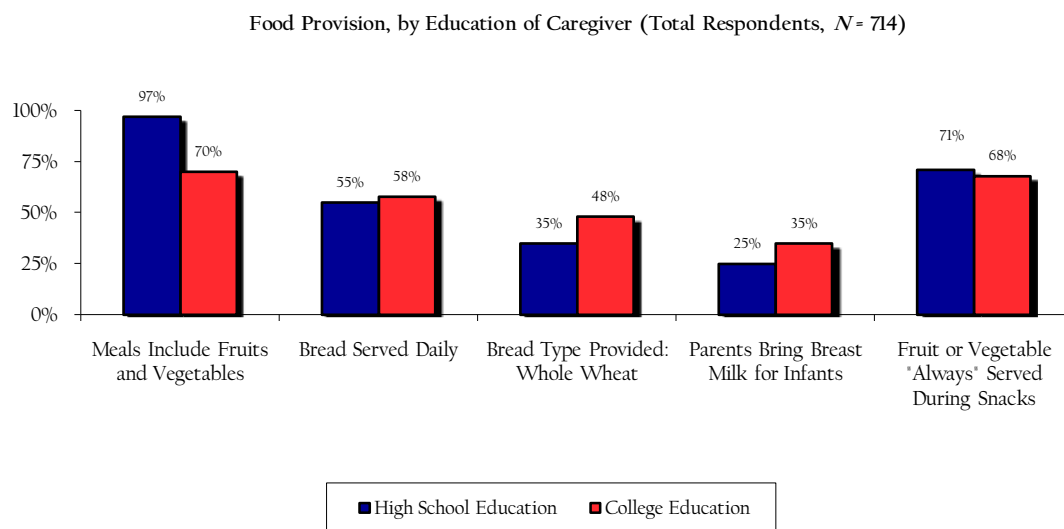
Our fruit is delivered on Monday. We always have our bananas early in the week, because otherwise they go bad. They won’t last. So we plan up to Wednesday at the latest.



The socioeconomic status of the owners offers an important clue as to the types of foods they provide to the children in their care.

While the survey did not directly measure socioeconomic status (SES), two proxy measures were taken: respondent education and whether or not respondents access the Internet. These two measures correlate with income; education is one dimension of SES.

The effect of SES is mixed: High SES is associated with greater provision of bread at day care, specifically whole wheat bread, as well as higher rates of breast milk provided to infants by their mothers. However, higher-SES respondents reported much lower rates of fruit and vegetable provision than respondents with lower SES. (The chart below shows data for education; patterns were identical for responses regarding Internet access.)



In the focus groups, one of the more obvious manifestations of this disparity emerged in discussions about how respondents like to learn more about the nutritional values of foods to better plan for the children's meals and snacks. Often, one participant would discuss a recipe or idea found on the Internet, only to have another participant retort that not everyone has access to computers. These data show that registered home operators are significantly less likely to have access to computers or Internet than those operating larger child care centers. The following exchange among Arlington participants is typical of what was said in all groups.

Respondent 1: *E-mail is good, the Internet is good.*

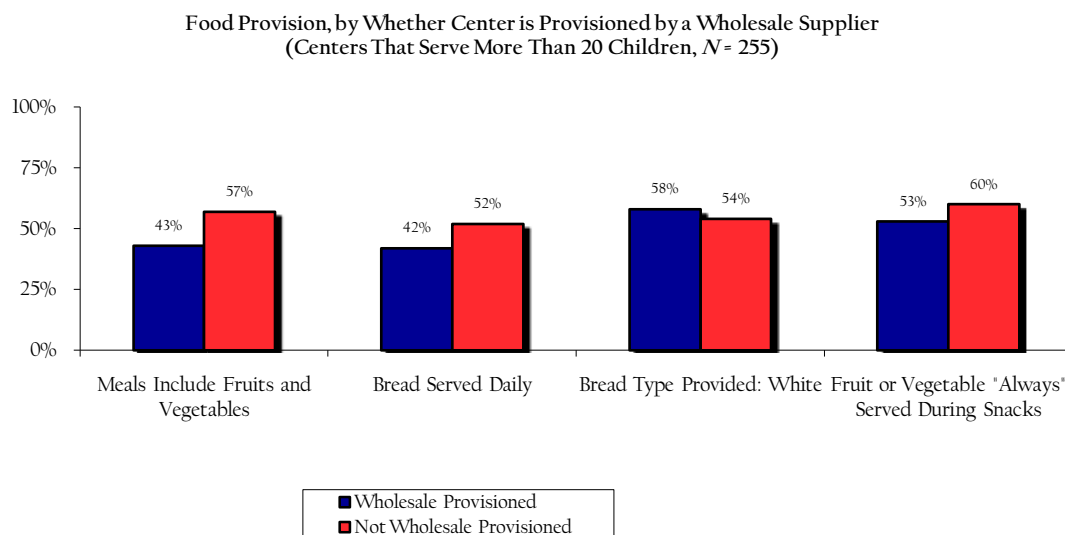
Respondent 2: *Not for me, it wouldn't. I don't do the e-mail.*

Respondent 3: *I don't see a computer that often.*



Children receiving care at large centers that purchase food from wholesale suppliers eat fewer fruits and vegetables than do children at other large centers.

Children at day care centers that purchase foods from wholesale suppliers consume only two thirds of the amounts of fruits and vegetables eaten by children whose centers are not so provisioned. In addition, children whose centers are provisioned by wholesalers eat significantly less bread, and what bread they do eat is more likely to be white bread. Since suppliers only serve centers and not homes, homes were excluded from this analysis. Small centers were excluded for the same reason. Thus, this effect is not confounded with center/home status or center size.



The ability of larger centers that take regular deliveries at the beginning of the week to serve fruits and vegetables all week relies heavily on what suppliers bring them. The following quote by a larger center operator shows the multiple decision-making factors considered when choosing how to purchase food. It is interesting to note that, anecdotally, the decision to shop at discount “club” stores such as Sam’s or Costco usually increases the number of packaged snacks provided, such as the 100-calorie cracker or cookie packages that can be purchased in large quantities from such suppliers and easily stored.

We used to get our fruits and vegetables from Sysco. Well, we have the storage, but it just goes bad. If you don’t serve it, it’s a waste of money ... it goes bad fast, the cucumbers go fast, the apples, the oranges. They became so sky-high. Now we just go to Sam’s.

If you buy it in bulk, it’s cheaper.



Child care providers expressed negative perceptions of the eating habits of the children for whom they care when those children are in the care of their parents.

In all focus groups, discussions arose spontaneously among child care providers about the eating habits of the children when they are outside of their care. They reported that many parents do not feed their children properly, citing a lack of time to do so. Many children come to school hungry or with “junk food,” such as candy, donuts, fast food, and other undesirable foods. Furthermore, providers often feel a responsibility to feed the children more on Fridays because they fear the children will not eat well over the weekend. They also said parents are often surprised to learn about the vegetables and fruits their children willingly eat in child care. In conclusion, they expressed strong opinions that parents should be the target of the media campaign, not child care providers, who do their best with limited funds to offer what they view as healthy foods.

These qualitative findings of highly negative perceptions were quantified in the telephone surveys. On average, 84% of child care providers said it is either “very” or “somewhat” true that their children are hungry when they arrive at the center. A significant majority also said that the only real meals children get are at the center; that parents do not give their children fruits and vegetables; and that children come to school with junk food. Importantly, respondents who said that at least half of their children are enrolled in a government program reported higher percentages of poor eating habits outside of the center, across every question asked in this battery.

Some kids come in the mornings, they've got sweets. They're coming with pieces of candy and soda pop, chips. It is 7:00 in the morning, donuts. They're going to be bouncing off the wall before 7:30.

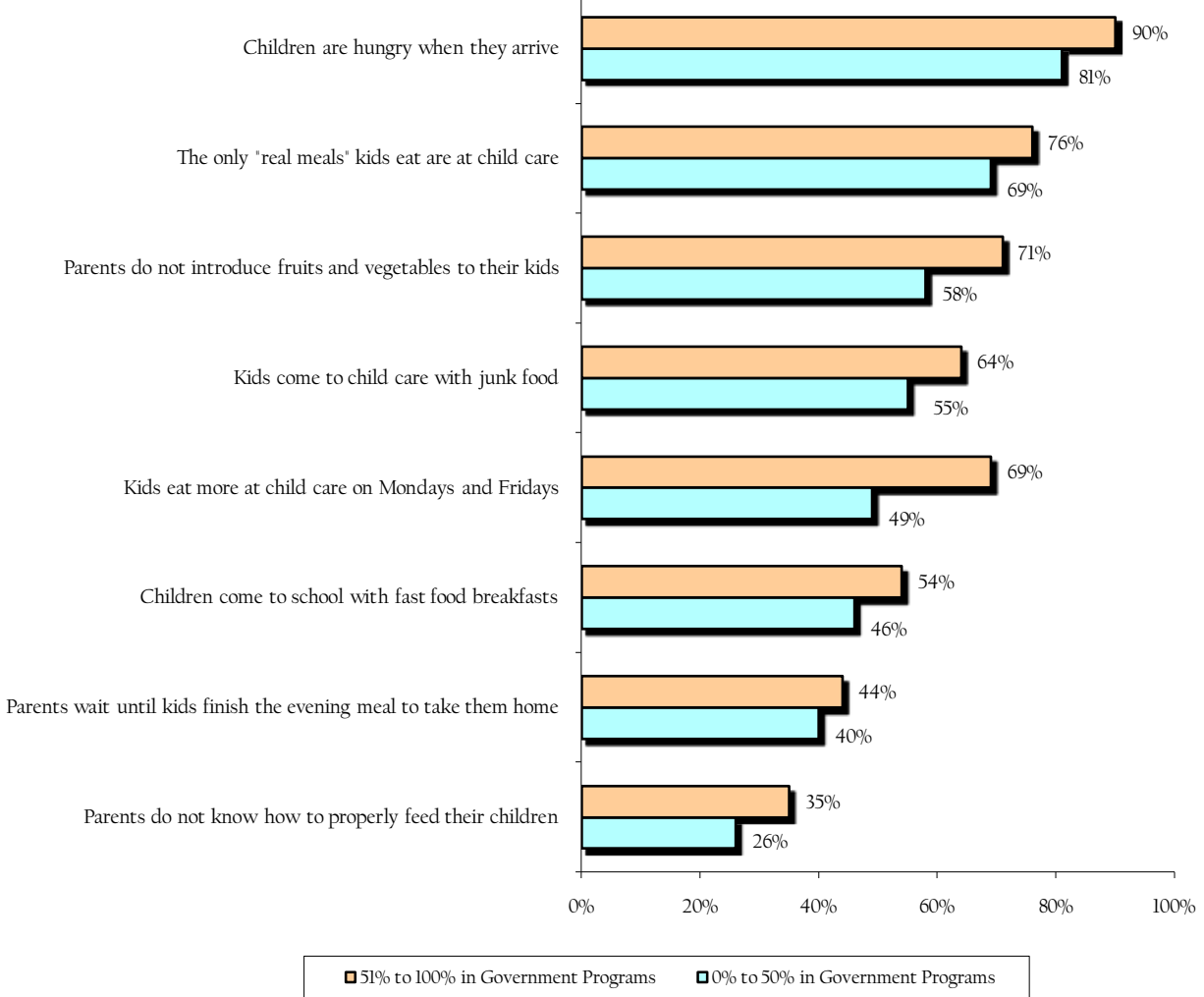
I hear the parents look at our menu, because we serve spinach and squash and zucchini and beets, and the parents go, “Eew, my child at that? I wouldn't cook that at home. I don't like it.”

You know the kid's going to come hungry on Saturday because he won't be eating on July 4th. We're closed.

I find a lot of my parents depend on me to make good, hot meals, almost as if it was their dinner because when they get home, they're so stressed out just getting them together and almost trying to get them in bath and to bed, that a sandwich for them or something small out of a can ... They depend on me to make a good meal.

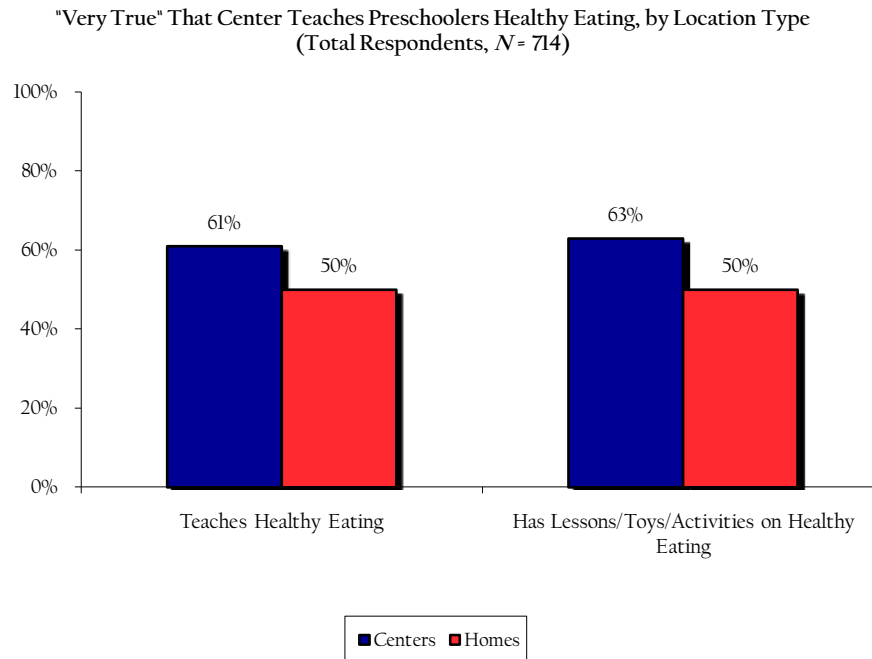


Child Care Providers' Attitudes Toward Children's Eating Habits Outside of the Center,
by Percentage of Children in Government Programs
(Total Respondents, *N* = 714)



Centers lead registered homes in teaching preschoolers about healthy eating.

Respondents from child care centers are significantly more likely than home providers to teach about healthy eating as well as to have the structure to teach about it through lesson plans, toys, and specific activities regarding healthy eating.



From a qualitative point of view, child care providers working in larger, more professionalized settings may belong to trade organizations, such as the Texas Association for the Education of Young Children, which offers standards, professional training, continuing education, and other advantages that may or may not be accessible to the registered home provider. In discussions about training needs, for example, these kinds of associations were mentioned by participants who were obviously more educated about child development and nutrition.

In the classroom, I've pulled a lot of ideas off the Internet, because you have National Nutrition Month and different times of the year when you do different things.



Child care providers expressed a strong need for more training and tools, especially recipes, menus, activities, and lesson plans.

In focus group discussions, participants across the state agreed that while they understand and approve of the Healthy Snack Initiative in principle, they would need training to implement it. In particular, participants expressed strong concerns about the cost of implementing such a policy and said they would need suggestions, recipes, and other tips for providing snack variety and snacks that are filling.

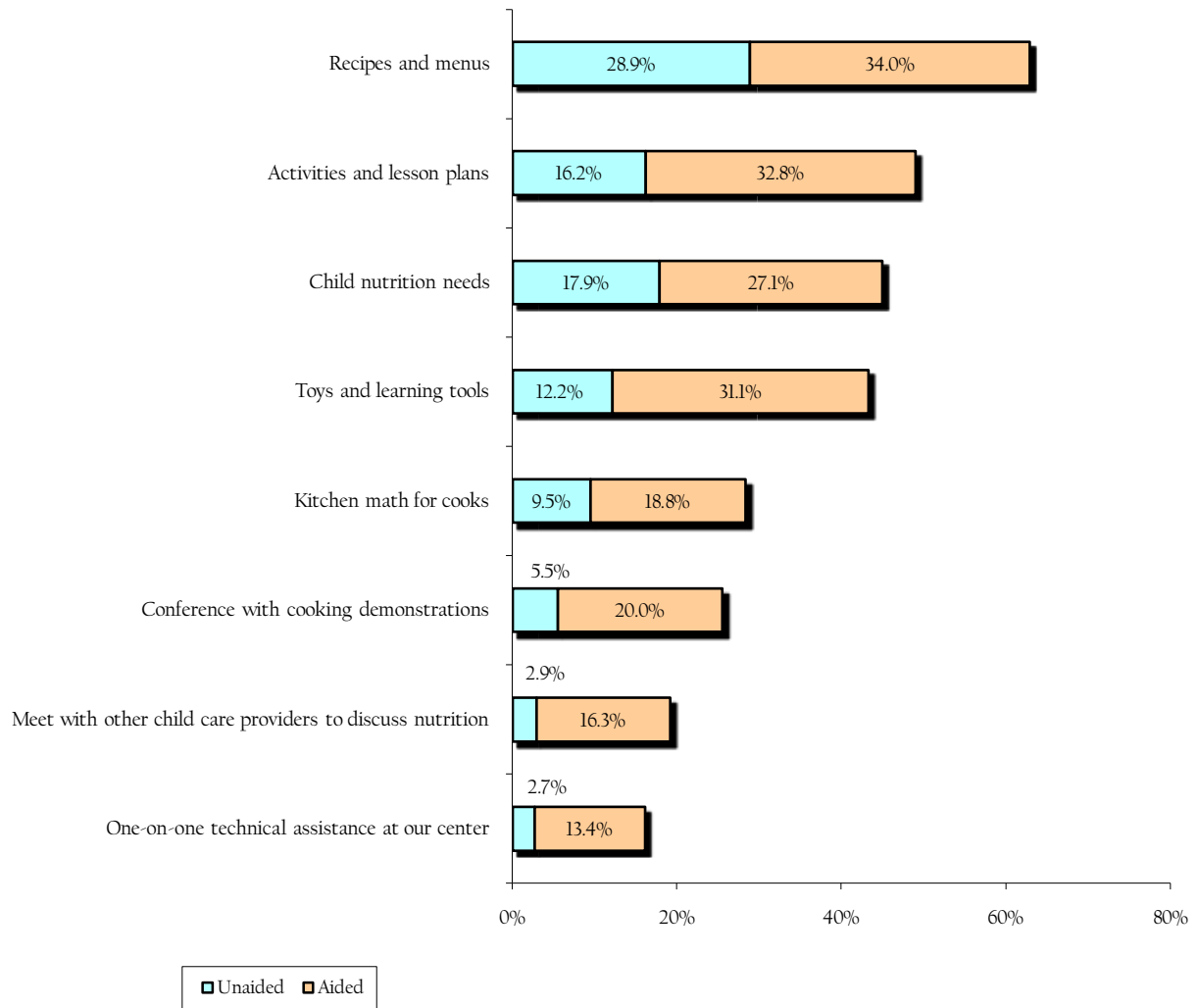
Medium- and large-center providers often cited training for cooks as a need, especially in light of the relatively high turnover in this position. Other training needs mentioned related to kitchen math, measuring, food storage, and avoidance of cross-contamination.

These findings quantify anecdotal evidence gathered in focus groups that strongly suggest that training methods differ greatly between home and center providers. A significant number of home providers have limited or no Internet access and little time for off-site training. Limited budgets for training across the board call for more cost-effective local events or on-site visits for the hands-on training and demonstrations preferred by some providers. On the other hand, those with Internet access expressed a strong preference for Internet-based distance learning options. Both audiences could receive video or CD training to be viewed on television.

In line with their frequently expressed mistrust of the nutrition provided by parents, participants in all focus groups requested training and technical assistance in educating parents. In addition to handouts, video presentations, and other giveaways for parents, providers suggested that they need assistance with more difficult interpersonal issues with parents, such as boundary-setting over what foods may be brought into the center, and working with them appropriately to properly train their children to eat nutritious foods.



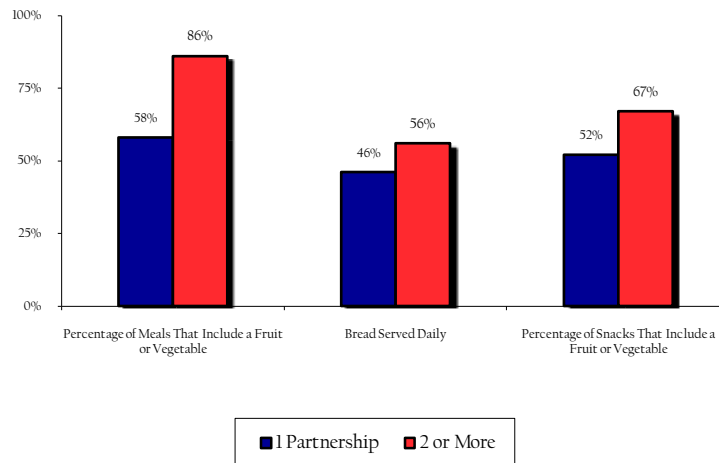
Types of Training Desired (Total Respondents, *N* = 714)



Providers with partnerships for nutrition education serve more fruits and vegetables than those without such partnerships with other groups.

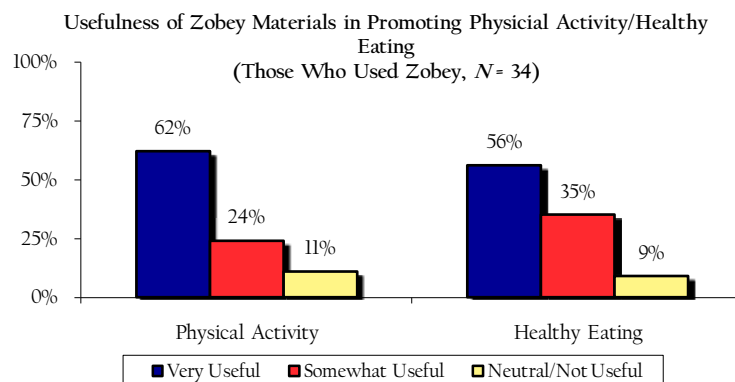
Respondents who reported that their facilities have more than one partnership for nutrition education (e.g., with WIC, Texas A&M Extension, Texas AgriLife, Food Bank or Pantry, CACFP) reported substantially higher frequencies of serving fruits, vegetables and bread.

Impact of Nutrition Partnerships on Frequency of Fruit/Vegetable and Bread Servings per Meal
(Total Respondents, $N = 714$)



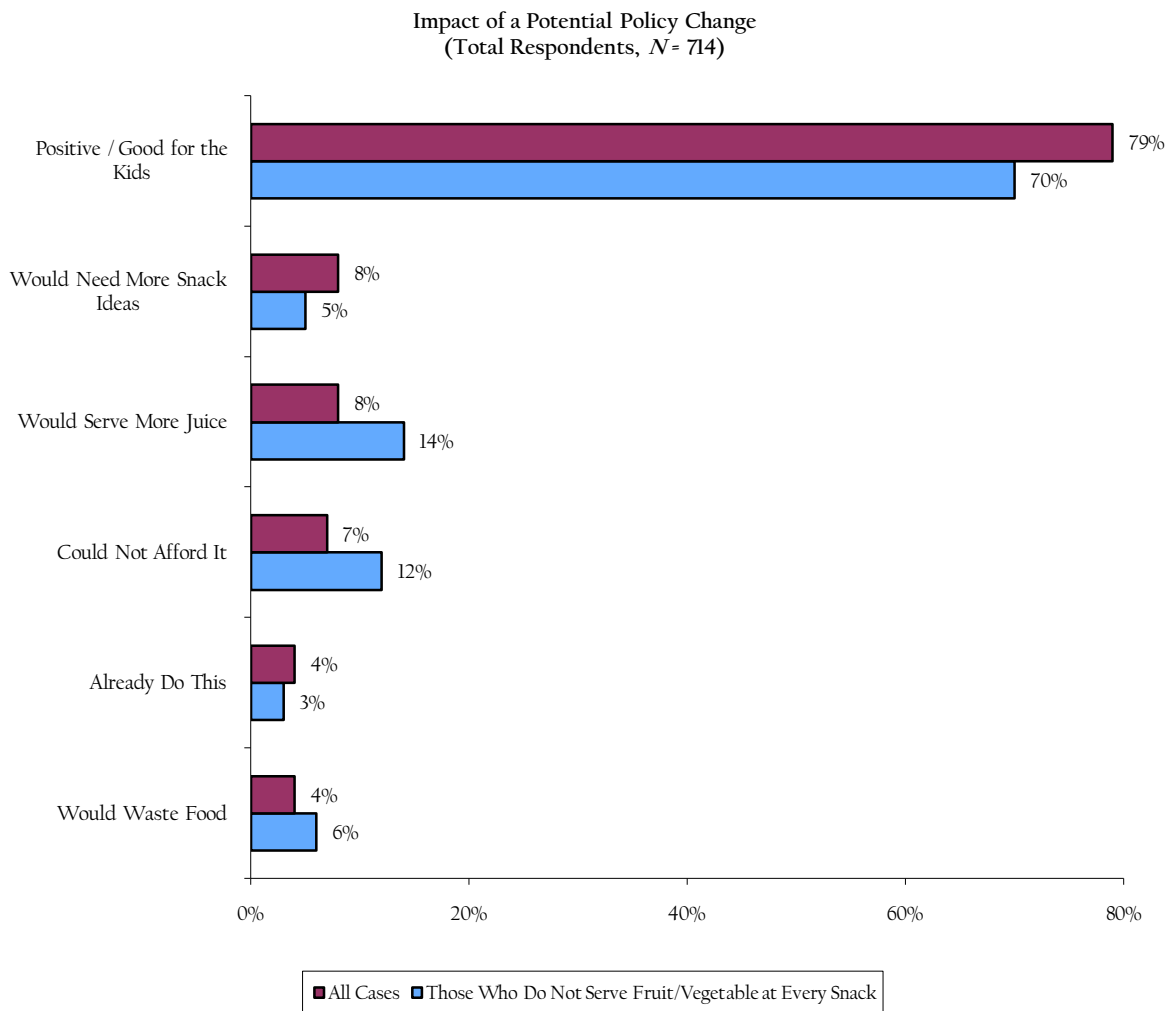
Although only a few respondents reported using Zobey materials (34 cases, 4.8% of the sample), those who did use them found them extremely useful. In focus groups, a couple of participants discussed their experiences with Zobey.

I really like it, because they show fruits, and my son is like, “I want that, Mom.” They play with the orange or something, and then he wants the orange. They jump and do exercises and dance. Sometimes he tells me, “I want that CD so I can dance in day care.”



Overall, respondents demonstrated positive support for policy changes in line with the Healthy Snack Initiative.

The vast majority of respondents said a policy change that would require a fruit or vegetable serving at every snack would be good for the children they serve. It should be noted that 65% of respondents said that they serve a fruit or vegetable at every snack already. Nevertheless, the proposed change garners widespread support among those who presently do not serve a fruit or vegetable at every snack.



It should be noted, however, that in focus group discussions some participants reacted to the news with an expression of concern about the impact of the policy change, particularly regarding cost. However, some doubts were expressed that children would be satisfied with a fruit or vegetable as a snack.

Kids come from school and they are starving by the time they get to day care. [Expressions of agreement] Then a lot of times, a light snack in the evening time, they're starving by the time they get home. So it has to be something more filling besides fruits and vegetables.



Introduction

The Children and Adult Nutrition Program, sponsored by the United States Department of Agriculture, has recommended that children be served at least one vegetable or fruit at all snacks. In order to inform policy changes in Texas, members of the Texas Department of Agriculture's SNAP team sought to gather opinions from their contractors who operate child care centers and/or provide child care in registered homes. To that end, SUMA/Orchard Social Marketing, Inc. recruited child care providers to participate in focus groups, which met during June and July 2008 in the following six locations.

- Midland/Odessa
- El Paso
- Austin
- San Antonio
- Houston
- Arlington (Dallas/Fort Worth)

Lines of inquiry included the following.

- General knowledge and practice regarding snack provision
- Awareness and perception of the Healthy Snack Initiative
- Response to proposed policy changes
- Ways to learn about and teach nutrition to staff, students, and parents

Directional findings from the focus groups yielded questions for the quantitative telephone survey to determine the prevalence of attitudes, perceptions, beliefs, and daily practices related to the Child Nutrition Program; reactions to proposed policy changes aligned with the Healthy Snack Initiative of the United States Department of Agriculture; and needs for training and technical assistance. The findings in this report are quantitative, with qualitative data inserted to further detail the findings. *Italics* denote verbatim quotes by focus group participants; all statistical tables reflect results of the telephone surveys of 714 child care providers operating in the State of Texas. The margin of error is $\pm 3.66\%$ at the 95% confidence level.



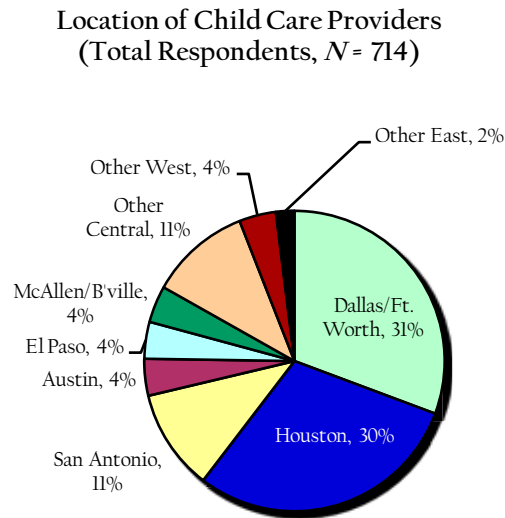
A Sample of Texas Child Care Providers

Before exploring the relationships in the data, it is important to understand the character or makeup of the sample. What, in short, are the key factors on which child care providers differ? The present chapter provides a brief summary of these factors.

Location of Child Care Providers

Question B: In what city do you live?

Child care providers are spread throughout the state, proportionate to the overall population of Texas.

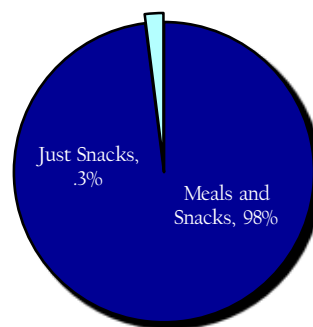


(Overall) Food Provision by Child Care Providers

Question 2: Does your organization provide meals/snacks for the children in your care?

All but two providers in the sample said that they provide not just snacks but also meals to the children in their care.

Food Provision by Child Care Providers
(Total Respondents, $N = 714$)



Organizational Description of Child Care Providers

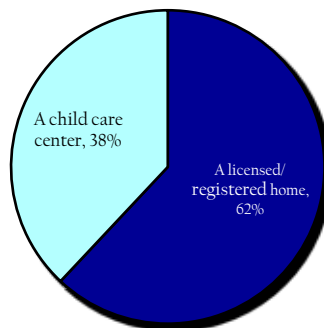
Question 6: *Is your organization considered a licensed home or a child care center?*

Question 7a: *How many child care centers does your company operate?*

Question 7b: *Are all of the centers your company operates located in Texas?*

The respondents to this survey operate mostly from homes, although a large minority operate from stand-alone centers.

Organizational Status of Child Care Providers
(Total Respondents, $N = 714$)



It is important to note the centrality of this variable as well as its high collinearity with a number of other key variables in the data set. Simply put, respondents working out of homes are extremely likely to answer a number of key questions in predictable ways, as reviewed below. This is important because, as already previewed in the executive summary, whether a child care provider operates out of a home or out of a center is crucial to the degree to which she or he serves not just fruits and vegetables, but breads and milk as well. Furthermore, it is linked with training, partnerships, assistance, and many other variables.



Whether a respondent operates out of a home or out of a center is highly correlated with how food is prepared, where food is prepared, and whether the respondent is the owner of the day care facility. The interrelationships among these variables are represented in the table below.

	Likelihood of Answering Affirmatively If ... (%)			
	Respondent is the Owner	Food Is Prepared By Respondent	Respondent Is a Home Provider	Food Is Prepared at Home
1. Is respondent the owner?	—	82	82	84
2. Is food prepared by respondent?	94	—	93	94
3. Is respondent a home provider?	96	95	—	98
4. Is food prepared at home?	95	93	95	—

As is evident from the table, each of these four questions is highly correlated with the others. In short, child care providers who operate out of homes tend to be the owners, prepare the food the home serves themselves, and, unsurprisingly, prepare that food in the home.

The problem with such high correlations is that the researcher cannot see from bivariate data which of these variables might be driving something else (e.g., fruit and vegetable consumption). Multivariate models similarly have difficulty finding significant relationships. Nevertheless, when each variable's relationship to fruit and vegetable consumption is explored individually, one finds very strong effects of each of them. Therefore, due to this collinearity, the researcher must choose which is the true driver on the basis of theory rather than research.

Here it seems clear that provider location type (home vs. center) is the variable that should be chosen as the driver, if only because it determines whether food is prepared in the home or not.

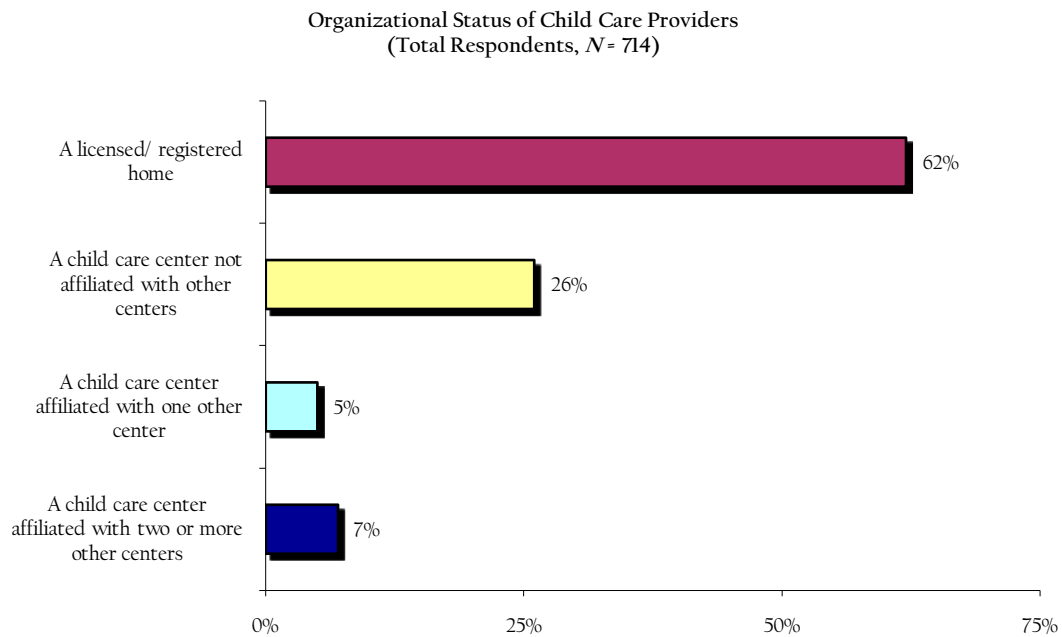
The other significant relationships worth noting are those between whether the respondent is the owner and (1) whether food is prepared by the respondent and (2) whether food is prepared in the home. From a theoretical perspective, there is little reason to assume that the ownership factor will actually drive differences in the reporting of fruit and vegetable consumption (although it is certainly true that owners might be more likely to “embellish the facts,” about what they serve, simply because of their title). Rather, one would think that there is more likely to be a relationship between preparing food and consumption of food, rather than between center ownership and consumption of food. The same should be true for place of food preparation as a more significant driver of food consumption than ownership status.

Luckily, even with these high correlations, regression models are still able to generate useful results, even if the collinearity makes such models less robust.

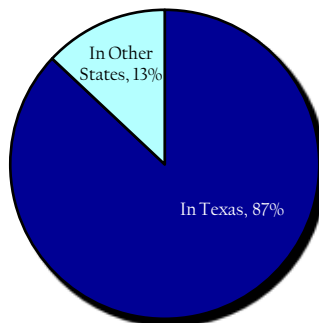
Throughout this report, we will note all significant bivariate relationships. However, when such bivariate relationships involve the variables in the correlation matrix above, we will note whether they become statistically insignificant once they are placed into a regression model. In other words, regression models will be used to pit these variables against each other to see which remains as the strongest predictor and which fall into statistical insignificance.



Of stand-alone centers, 70% are not affiliated with any other centers. Nearly nine of ten multisite providers operate all their sites in the state of Texas.



Location of Other Affiliated Centers
(Providers Affiliated With Other Center(s),
N = 82)



Children Served by Child Care Providers

Question 8a: How many children do you currently serve at this facility?

Question 8c: Is one or more of the children in your care your own chil(dren)?

Question 8d: What percentage of the children you serve are under the age of 5?

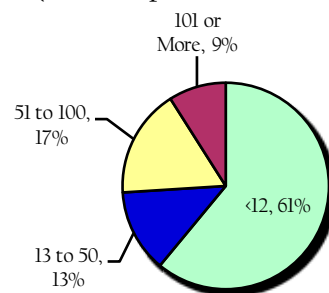
Question 8e: Does your child care center serve children under the age of 1?

Question 8b: What percentage of the families you serve do you think participate in government programs such as Medicaid, Food Stamps, TANF, or WIC?

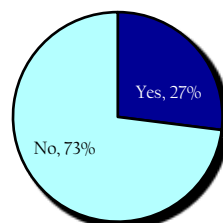
Over half of child care providers surveyed have fewer than 12 children in their care. In this sample, one of ten child care centers cares for over 100 children.

Slightly more than a quarter of the respondents said that their own children are being cared for at their child care locations. However, providers whose children are served by their own centers are no more likely to work in centers that serve many children than at those that serve few. Also, providers whose children are served by their own centers are no more likely to operate out of their homes than out of a stand-alone child care center.

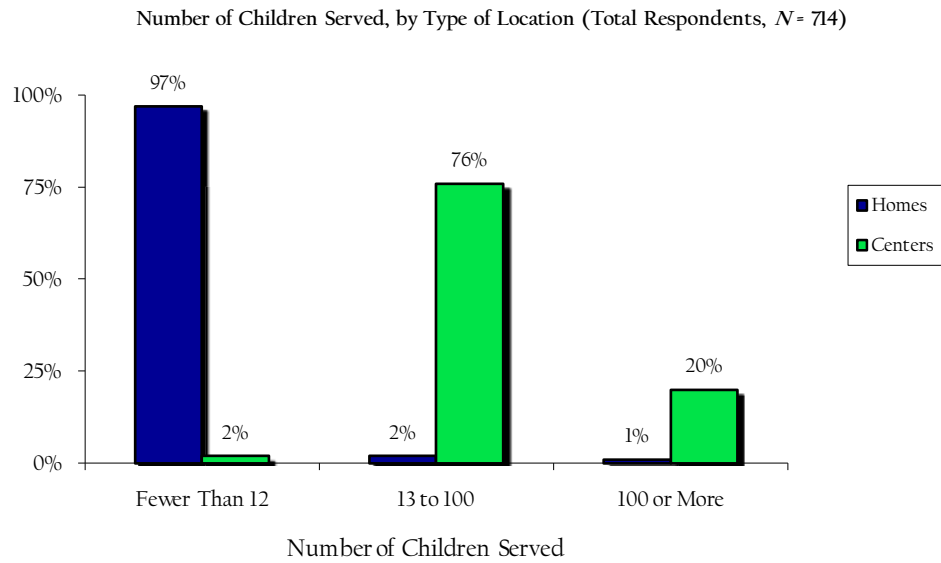
Number of Children Served
(Total Respondents, $N = 714$)



Respondents' Own Children in
Their Child Care
(Total Respondents, $N = 714$)

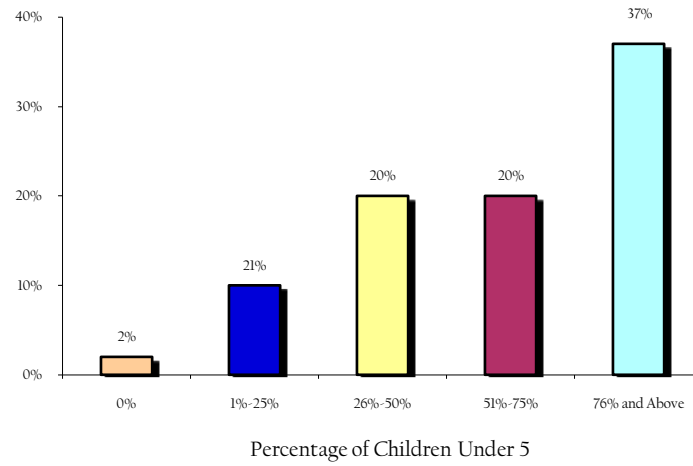


As might be expected, and by statute, those who provide care in their homes serve substantially fewer children than do stand-alone child care centers.

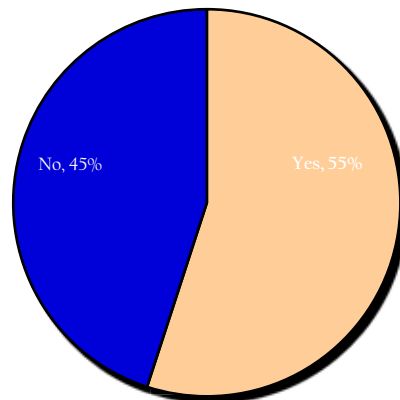


Nearly all providers serve children under the age of five, and for a majority, over half of the children they serve are under five.

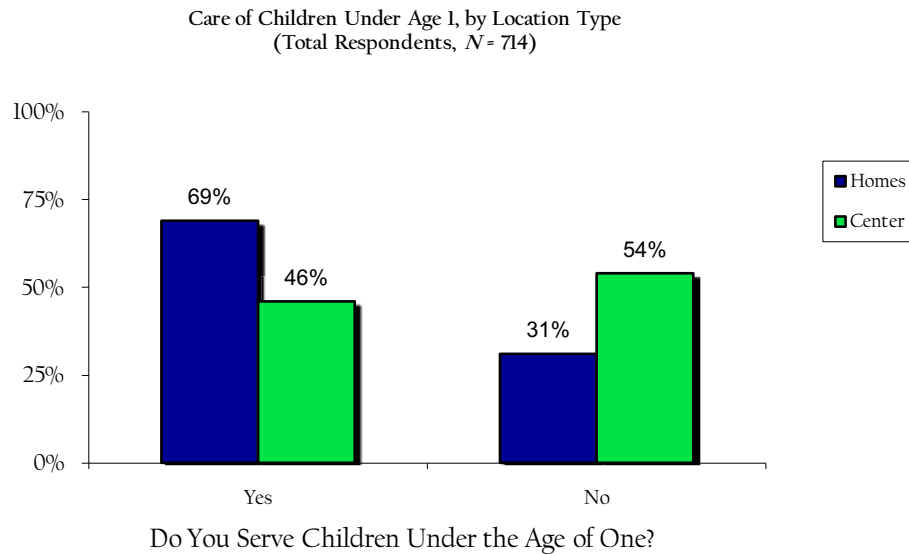
Percentage of Children Served That Are Age 5 or Under (Total Respondents, $N = 714$)



Center Serves Children Under Age 1 (Total Respondents, $N = 714$)

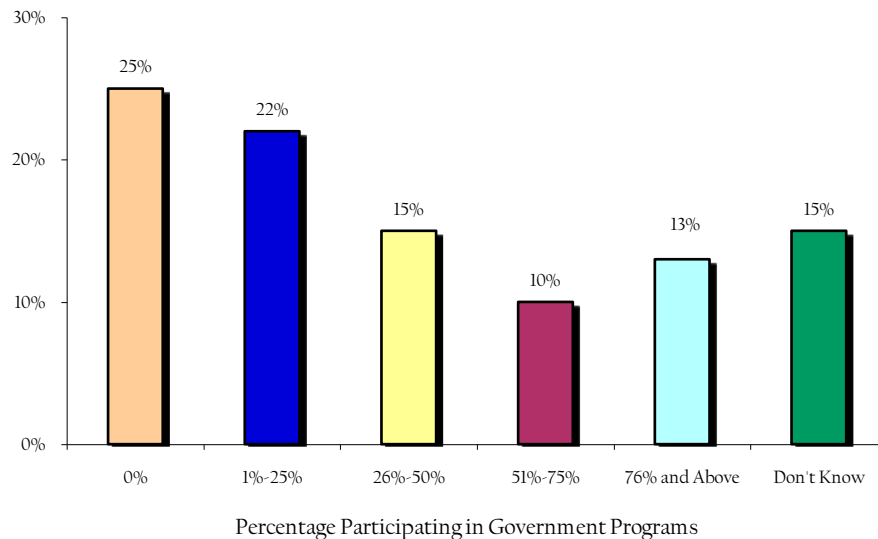


While home care locations are no more likely than centers to serve children under five years of age, home care locations are substantially more likely to have children under the age of one. Though not shown graphically in the following chart, larger centers are more likely to serve children under age one (51% of centers with fewer than 50 children, in comparison with 70% of centers with 50 children or more).

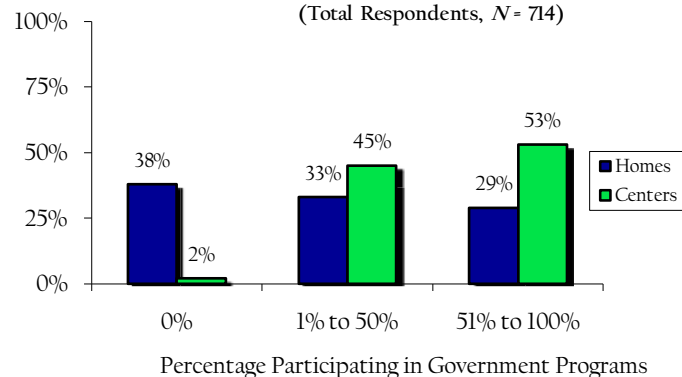


A quarter of all child care providers do not think any children in their care are served by a government program such as Medicaid, Food Stamps, TANF, or WIC. Another third of the providers said that over half of the children under their care are in such programs. It is important to note that the responses to this question are based on perception rather than on actual data on program participation. As might be expected, providers who work at child care centers are far more likely to say they have children that participate in government programs than are care providers functioning in homes. In fact, only 2% of respondents from child care centers do *not* have children participating in a government program, versus 38% of home providers.

Percentage of Children Served That Respondents Believe Participate in Government Programs
(Total Respondents, $N = 714$)



Percentage of Children in Government Programs, by Type of Location
(Total Respondents, $N = 714$)



Food Consumption in Child Care

The study explored a wide range of food consumption factors, including the frequency of servings of milk, fruits, vegetables, and breads at child care centers. The study also captured information on whether providers felt children were receiving sufficient food at home, as well as the amount of fast food they believed the children consumed.

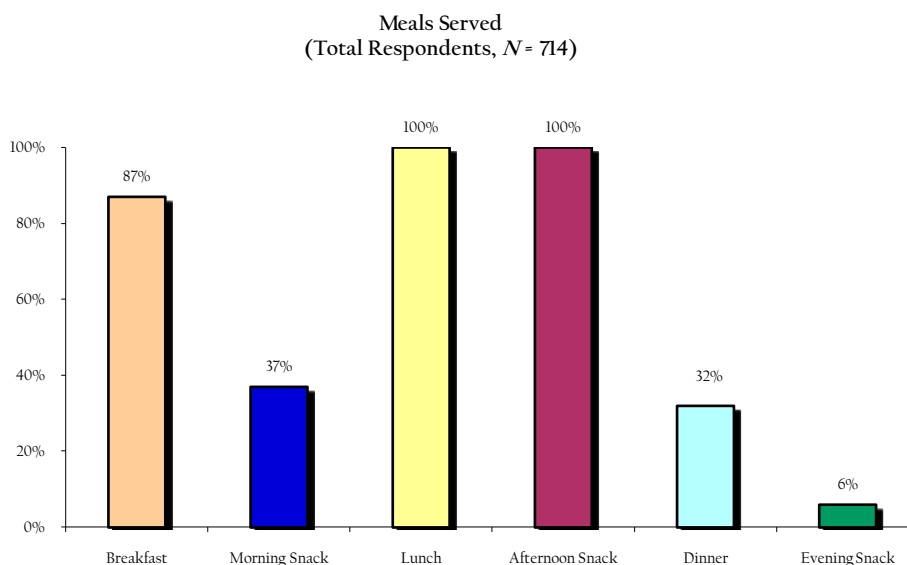
Meals

Question 9: What meals do you serve per day?

Question 10: How often do you serve snacks per day?

Nearly all the child care providers surveyed serve lunch and an afternoon snack (over 99.5% of all respondents answered each question affirmatively). Nearly nine of ten providers serve breakfast, although the proportion of centers serving morning snacks and dinner hovered around one in three. Few providers serve an evening snack. Focus group discussions indicated that many providers who also serve breakfast have eliminated morning snacks because when these are served children tend not to eat a hearty lunch. They tend to serve breakfast, an early lunch, and a large snack after naptime. They also spoke of the need to provide heartier snacks in the late afternoon to “tide them over” until their parents can get them home and feed them.

We eliminated the morning snack. We always gave one, but also we noticed we were throwing a lot of food away during lunch, so we're putting our lunch a little bit earlier and we got rid of the a.m. snack.



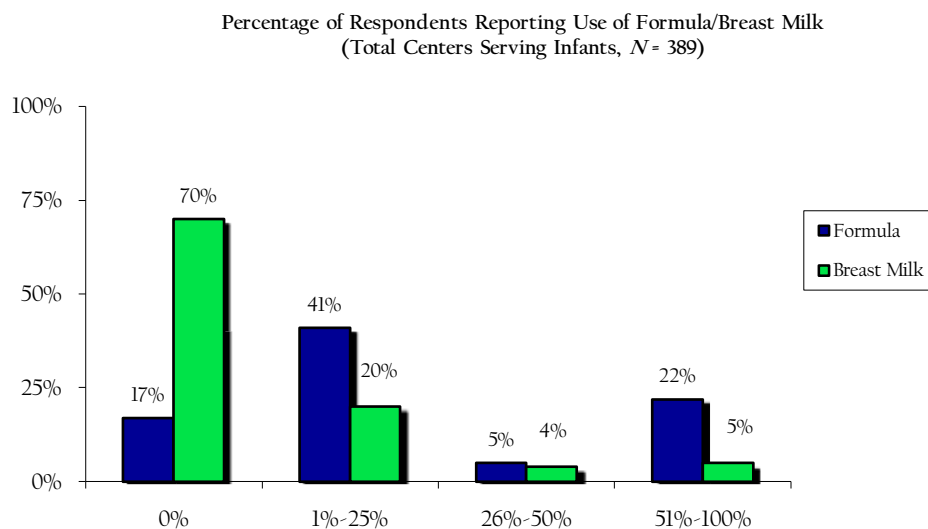
Food for Infants

Question 8f: What percentage of your infants receive infant formula?

Question 8g: Do moms at your facility bring breast milk?

Question 8h: What percentage of moms bring breast milk?

Seventy-eight percent of child care providers who serve infants under the age of one say the infants get either infant formula from the center or breast milk from their mothers. It is unknown what percentage of the remaining centers receive formula from parents. Overall, providers at only one of three centers reported that mothers provide breast milk for children under the age of one. Indeed, the vast majority of respondents who reported any formula/breast milk consumption said that what is provided to infants is formula.



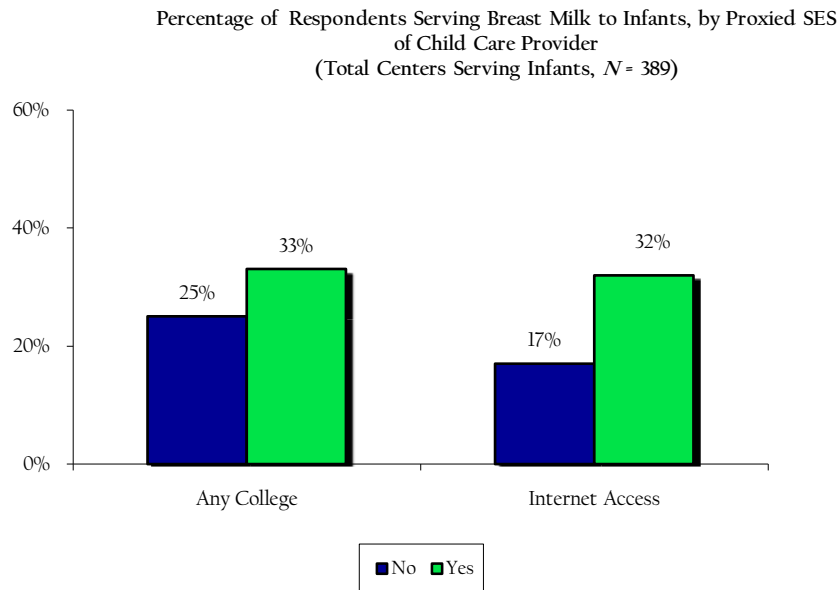
As might be expected, providers at larger centers reported slightly higher frequencies of infant formula use, which implies that child care centers serve it a bit more often than homes (72% of all centers versus 64% of all homes).

Similar results were found for breast milk: Forty percent of centers that serve children under the age of one have mothers who provide breast milk, in comparison with 23% of home providers.

As might be expected, there is a possible link between the SES of the provider and the provision of breast milk by mothers. Assuming that the education level of the day care center owner is correlated with that of the mothers of the children served, the data suggest that educated mothers are more likely than their less educated counterparts to recognize the impact of breast milk on healthy development. In other words, if it is true that well-educated mothers take their



children to centers whose owners are themselves generally well-educated, then it stands to reason that well-educated mothers are more aware of the importance of breast milk than less educated mothers, since mothers who enroll their children in centers owned by well-educated providers more frequently provide breast milk.



As illustrated by the chart, while about a third of providers who have Internet access or attended at least some college have infants whose mothers provide breast milk for them, providers who do not have any college experience or Internet access said the parents of children under their care provide breast milk only a quarter of the time or less.

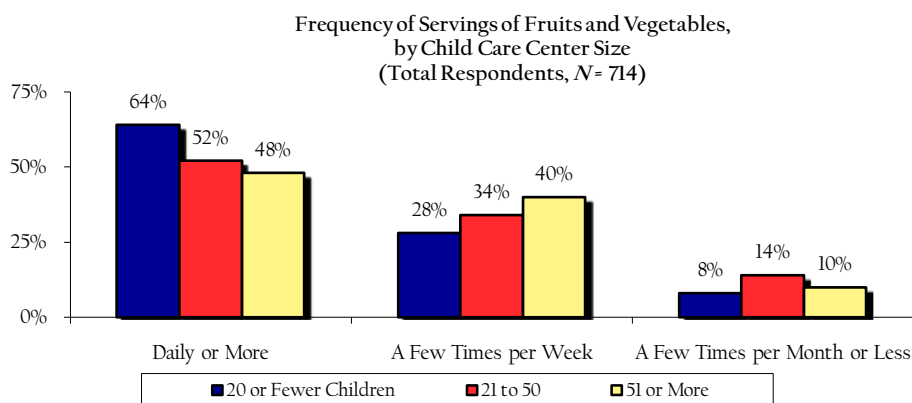
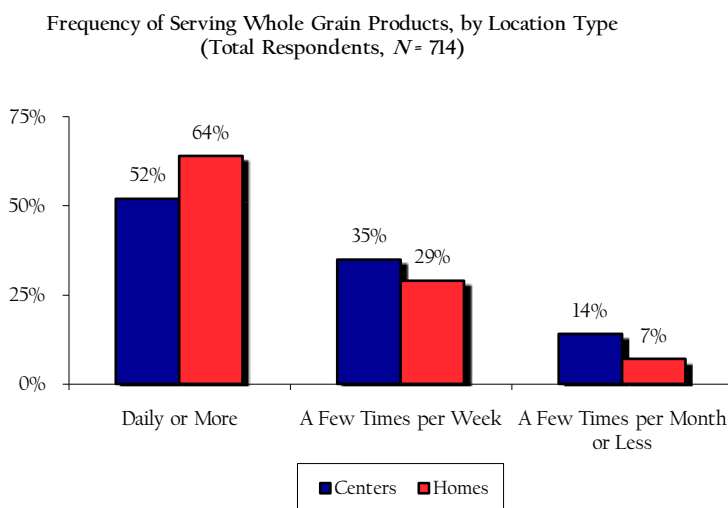


Grain Provision and Consumption

Question 17: How often are whole grain products, such as oatmeal, brown rice, 100% whole wheat bread, 100% whole wheat tortillas, or corn tortillas, included in the meals you prepare for your child care facility?

Question 18: What kind of bread do you usually purchase for this facility?

Overall, just over half of all child care providers reported serving whole grain products. Homes serve more whole grain than do centers. Looking at it another way, providers that serve fewer children offer more servings of whole grain—for example, providers who serve no more than twenty children offer whole grains on a daily basis a third more than do providers with over 50 children.

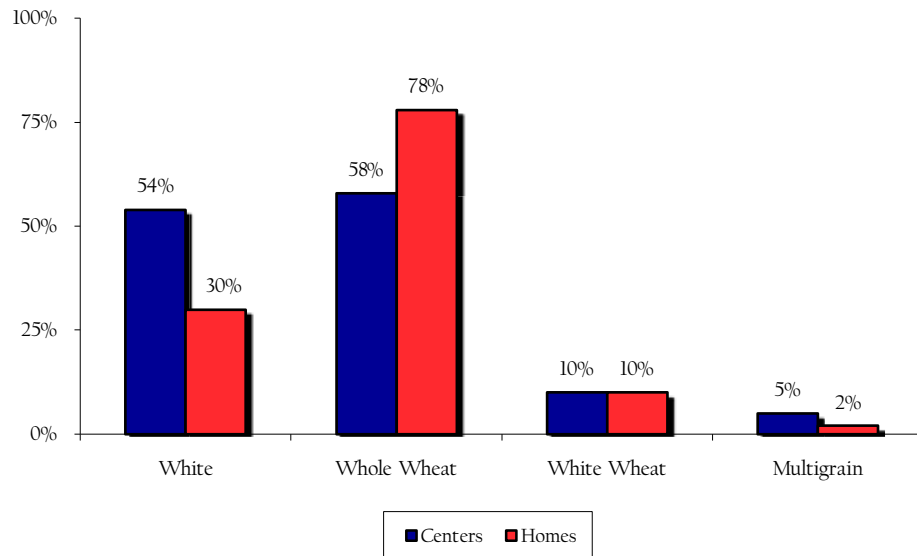


The majority of providers from both centers and homes reported serving whole wheat bread over white bread and other types of bread. Multigrain bread trailed far behind, as only a handful of providers reported the provision of multigrain bread. Homes were 20 percentage points more likely than centers to provide whole wheat and 24 percentage points less likely to serve white

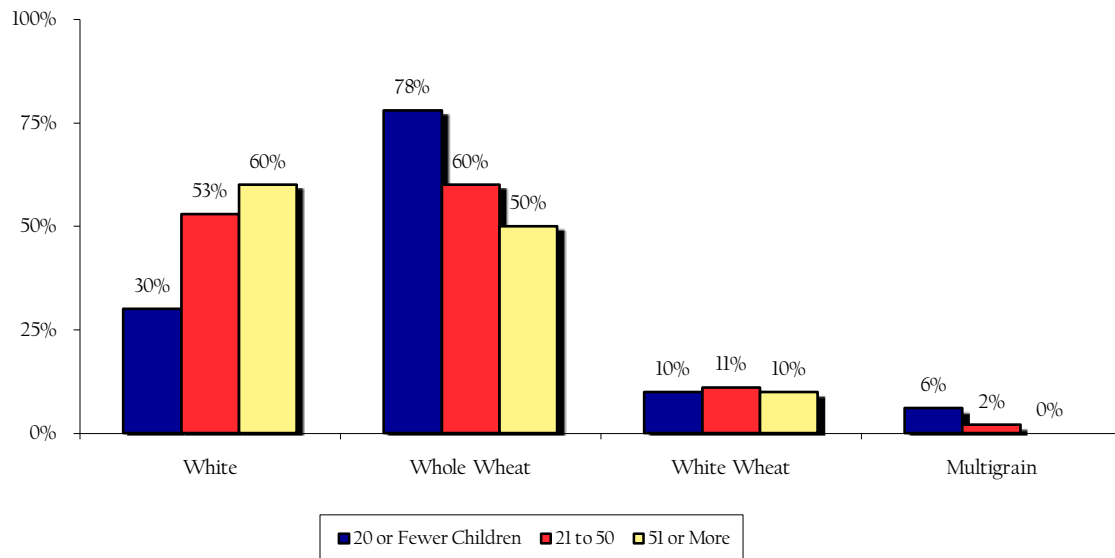


bread. And again (unsurprisingly, since homes serve fewer children than centers do), providers who serve fewer children are substantially more likely to serve whole wheat bread than white bread.

Type of Bread Served, by Location Type
(Total Respondents, $N = 714$)

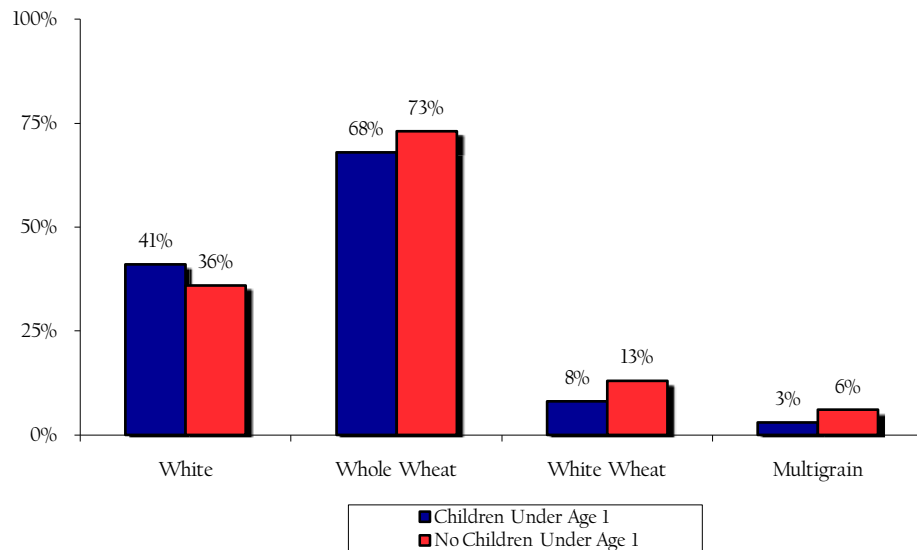


Type of Bread Served, by Child Care Center Size
(Total Respondents, $N = 714$)



There is a weak relationship between the type of bread served and whether or not a provider serves children under the age of one, with providers who do have children under that age at their facilities serving slightly less whole wheat bread than those who do not serve children under that age. This is interesting to note because home providers are more likely to serve children under the age of one, and homes were found to be more likely to serve wheat bread, not white.

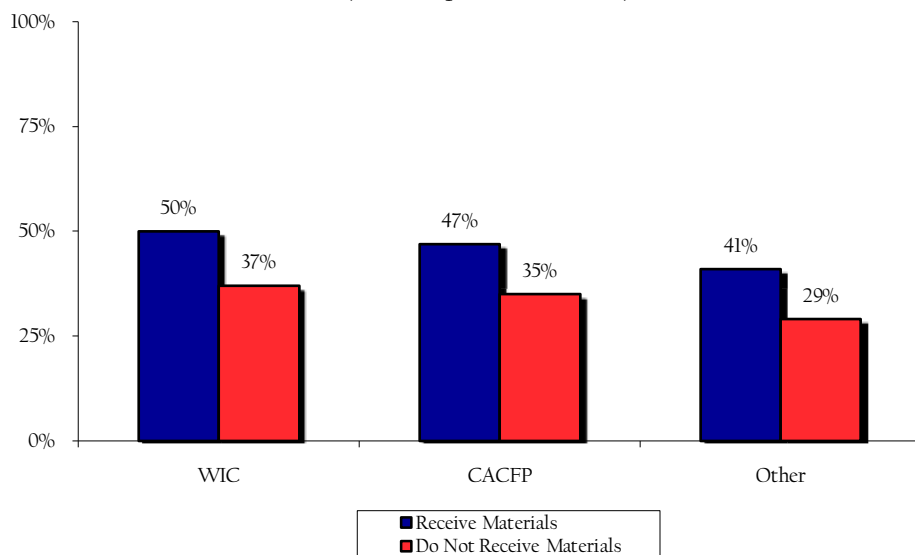
Type of Bread Served, by Whether Center Serves Children Under the Age of One
(Total Respondents, $N = 714$)



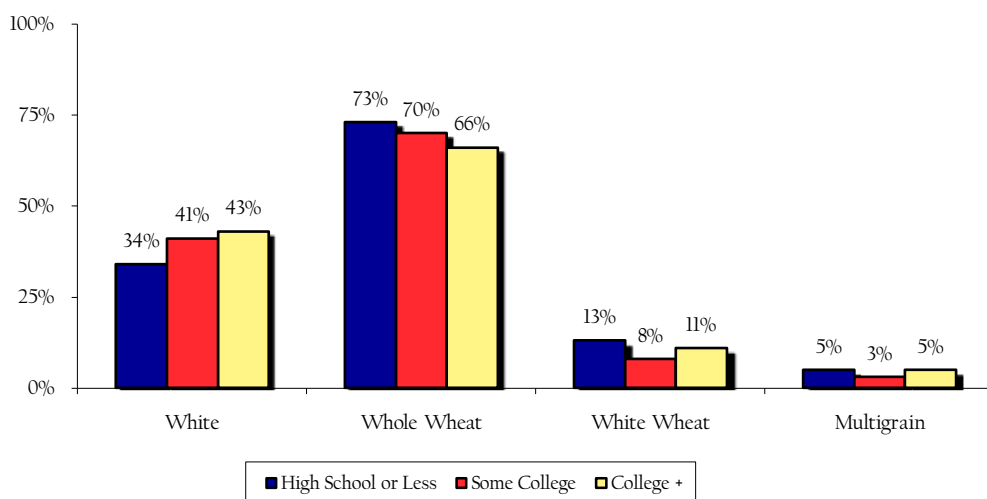
Nearly every variable in this report was compared against whether or not the center was receiving materials from a government program. Few variables showed consistent effects across all programs specified in the survey. One such variable was the likelihood of serving white bread: Providers who have received nutrition materials serve substantially more white bread than do those who have never received such assistance.

White bread is also more commonly served by owners with a more extensive educational background than by owners with no more than a high school education.

Percentage of Providers Who Serve White Bread, by Receipt of Nutrition Education Materials from a Government Program
(Total Respondents, $N = 714$)



Type of Bread Served, by Education of Owner
(Total Respondents, $N = 714$)



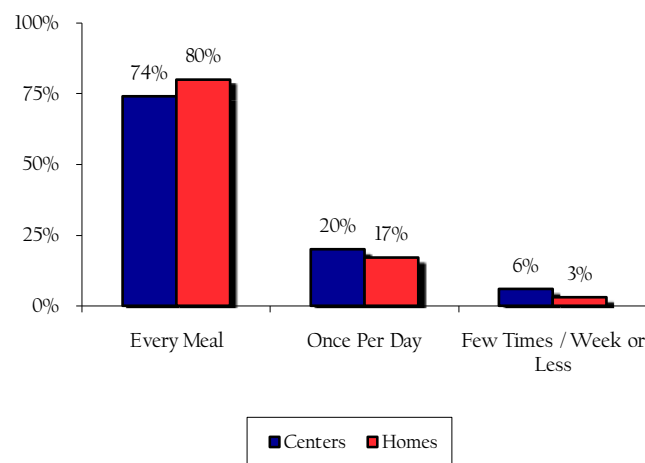
Milk Provision and Consumption

Question 23: Other than infant formula or breast milk, how often do you serve milk to children at your child care center?

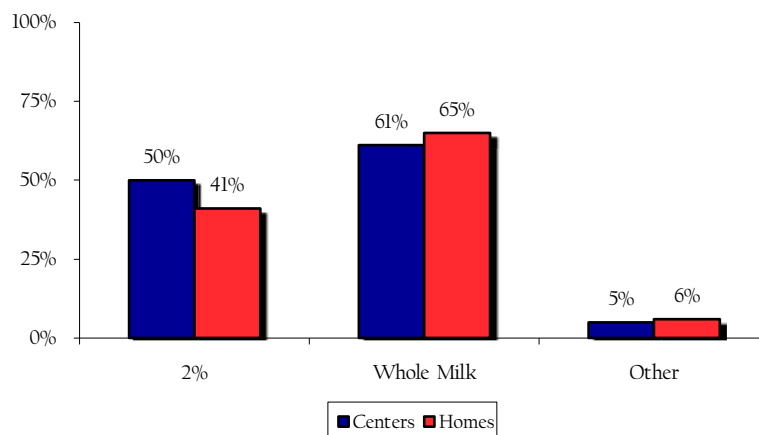
Question 24: What kind of milk do you usually serve your children over age two?

The vast majority of providers serve milk at every meal, with homes again taking the lead over centers, though only by a small amount (which in fact never attains statistical significance in multivariate models of milk consumption). As well, homes are more like to serve whole milk than are centers. This is consistent to the fact that homes are actually more likely to serve young children, who, once off formula, should receive whole milk until they pass the age of two.

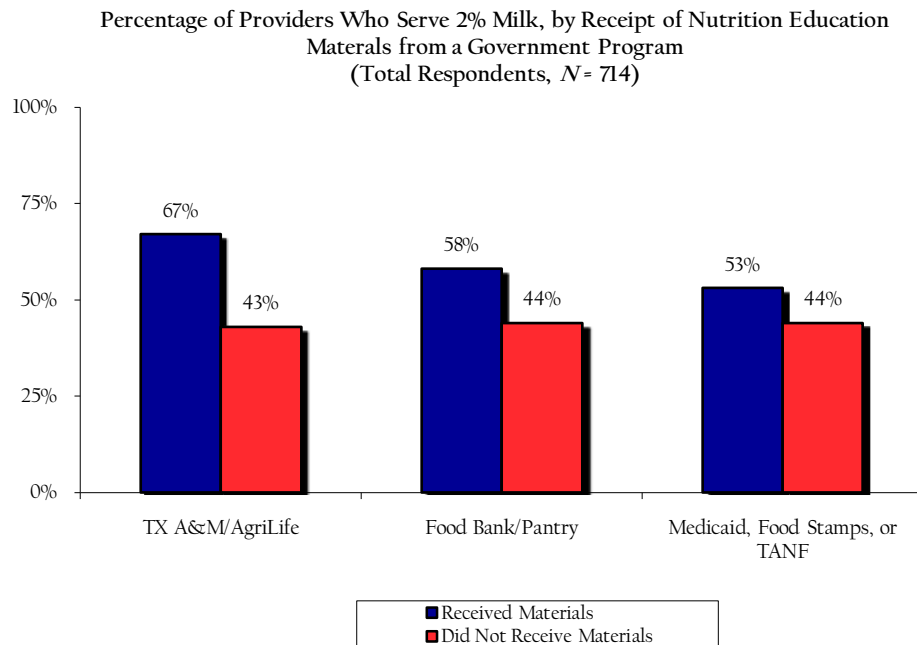
Frequency of Serving Milk, by Location Type
(Total Respondents, $N = 714$)



Type of Milk Served, by Location Type
(Total Respondents, $N = 714$)



Providers from many of the centers that have received nutrition education materials from a number of programs reported higher use of 2% milk and less use of whole milk than other providers. Specifically, providers who have received materials from the Texas A&M Extension or the Texas AgriLife Extension, the Food Bank or the Food Pantry, or Medicaid, Food Stamps, or TANF, were as much as a third more likely than others to serve 2% milk and just as likely not to provide whole milk.



Fruit and Vegetable Provision and Consumption

Question 15: How many times during the past week did the children under age 10 eat apples or pears/banana or plantains/cantaloupe/watermelon/grapes/oranges/peaches or apricots/pineapple/mangoes/kiwis/papaya/lemons or limes/berries/dried fruit/fruit cocktail/broccoli/carrots/cauliflower/tomatoes, tomato sauce, or salsa/cucumbers/jicama/lettuce or salad greens/French fries, potatoes, Tater Tots, home fries, or hash browns/spinach or other dark greens/avocado?

Question 16: How likely are you to purchase canned/fresh/frozen/dried fruits and vegetables?

Question 20: When you prepare snacks for your children in your child care, would you say that fruits and vegetables are never part of the snack, rarely part of the snack, sometimes part of the snack, or always part of the snack?

Question 21: When thinking about the amount of fruits and vegetables you serve to the children in your child care center, what would you say the reasons are that you do not offer more?

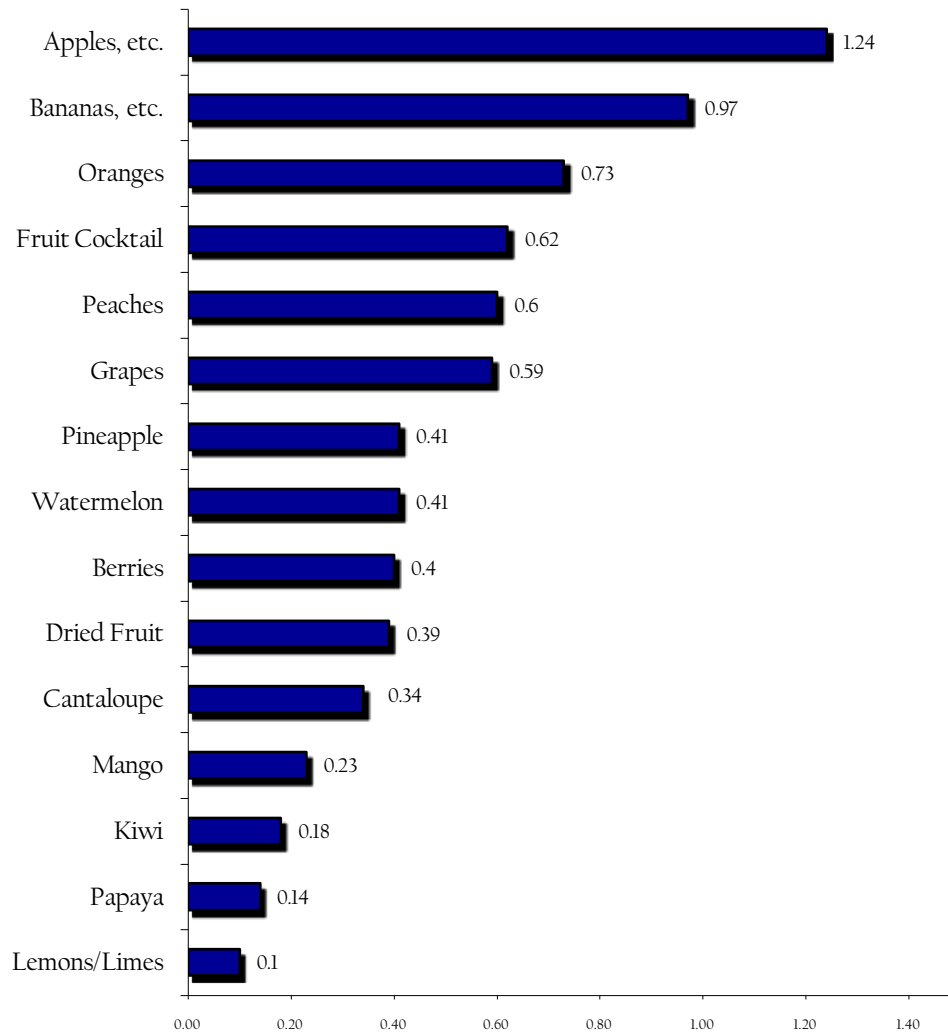
Question 22: In your opinion, do you think the children get the right amount of fruits and vegetables at child care now, or do you think they should eat more?

It should come as no surprise that the most frequent fruits consumed at child care facilities are apples, bananas, oranges, and fruit cocktail, and that more “exotic” fruits are less frequently served. Qualitative findings strongly indicate that these decisions are driven by cost, practicality of storage to prevent spoilage, availability, seasonal offerings, as well as the provider’s methods of shopping for or purchasing food. For example, providers at larger homes and medium to large child care centers who shop at Sam’s or Costco reported shopping once per week, with little time to shop for fresh food during the work week. Operators of smaller homes, on the other hand, spoke of shopping more often at neighborhood grocery stores on an as-needed basis. Since the focus groups were conducted during the summer, many participants mentioned the availability of fresh fruits (such as peaches, watermelons, and berries) that would likely be cost-prohibitive off-season.

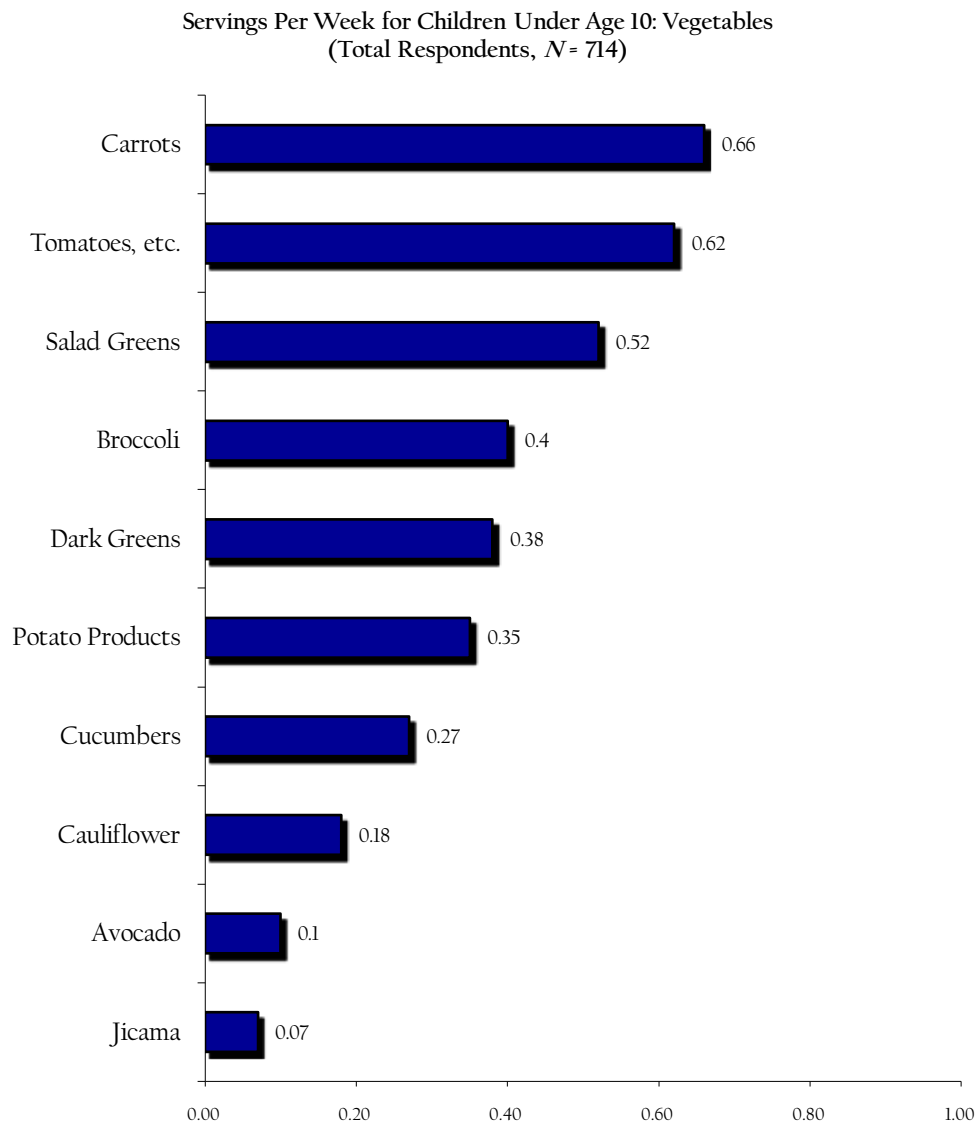
I’m not going to serve something that I’m going to throw in the trash. The best food I can come up with for snack is fruits and vegetables and ranch dressing. The love it, but I can’t afford to spend \$100 on fresh fruit every week for one snack item.



Servings Per Week for Children Under Age 10: Fruits
(Total Respondents, *N* = 714)

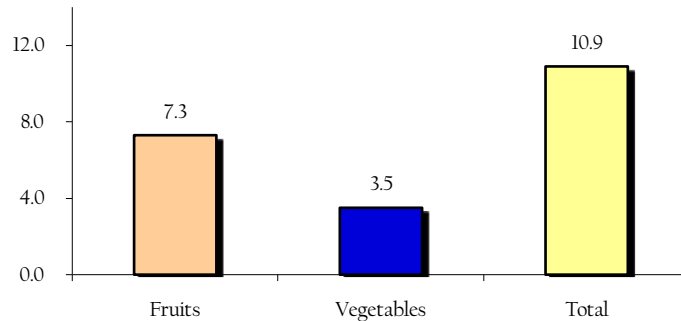


Similarly, it is unsurprising that carrots lead the vegetables in total amount consumed.



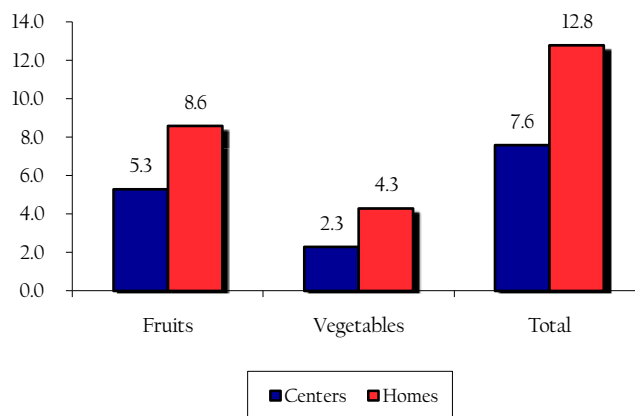
Overall, child care providers serve approximately 11 servings of fruits and vegetables each week. As is shown in the chart below, fruits are served far more frequently (7.3 servings per week) than are vegetables (3.5 servings per week).

Servings of Fruits and Vegetables per Week for
Children Under Age 10
(Total Respondents, $N = 714$)



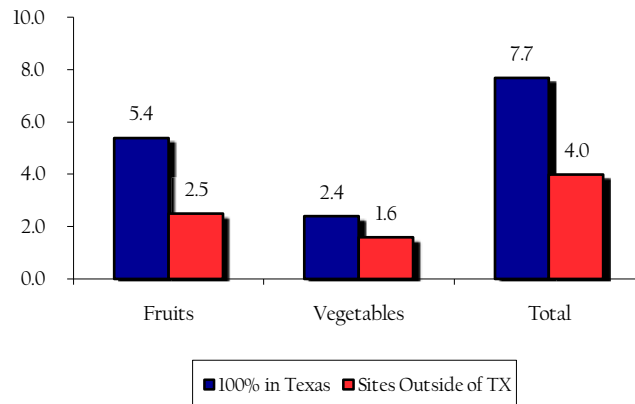
Interestingly, home child care providers serve fruits and vegetables more frequently than do child care centers.

Servings of Fruits and Vegetables per Week, by
Location Type
(Total Respondents, $N = 714$)



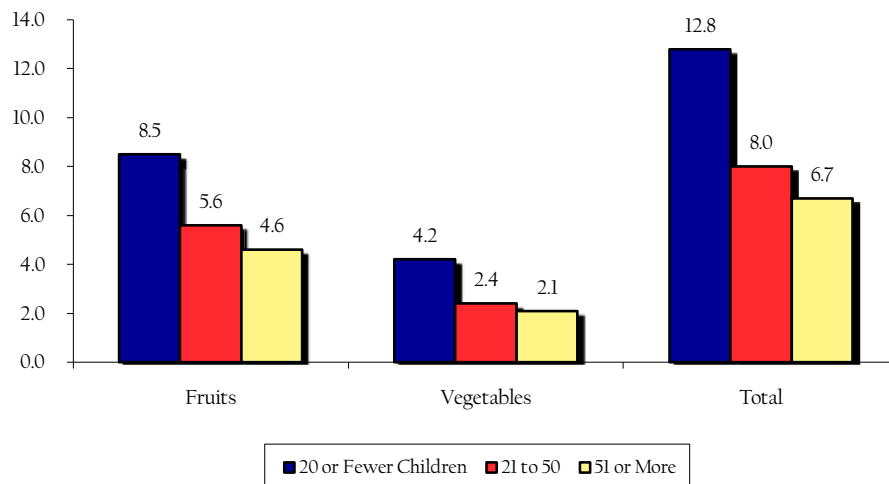
Child care centers whose locations are entirely within the state of Texas are much more likely to serve fruits and vegetables than those with locations outside the state.

Servings of Fruits and Vegetables per Week, by
Location of Sites
(Total Respondents, $N = 714$)

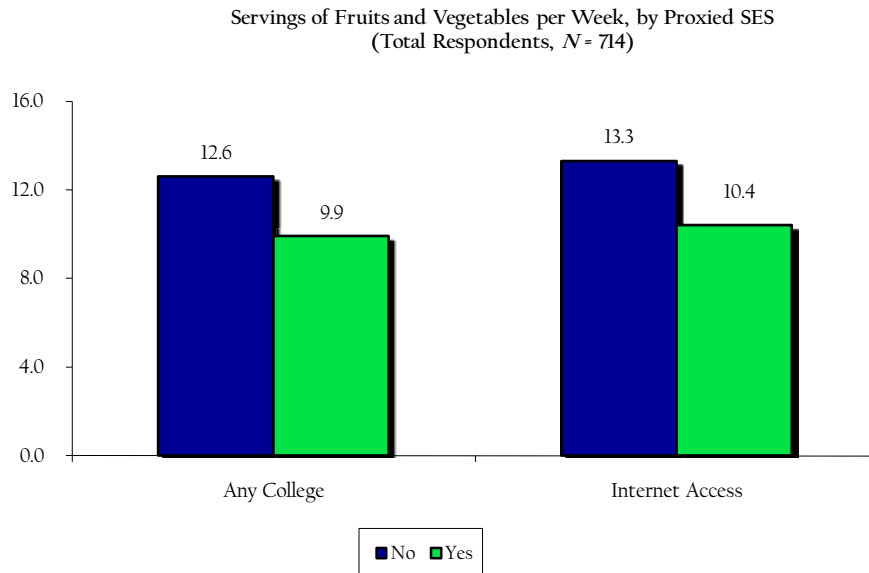


Furthermore, child care centers with many children are much less likely to serve fruits and vegetables than are centers that serve fewer children.

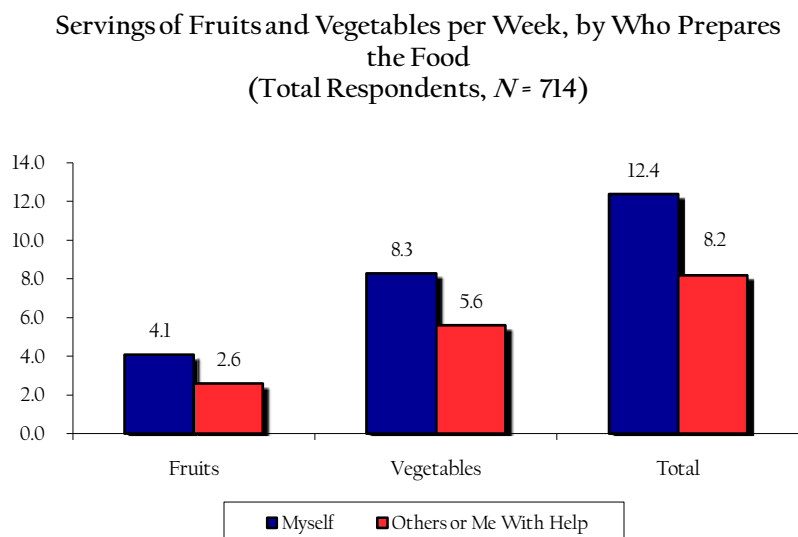
Servings of Fruits and Vegetables
per Week, by Child Care Center Size
(Total Respondents, $N = 714$)



Again using our proxy measures of SES, it becomes apparent that owners with higher SES are actually less likely to serve fruits and vegetables than are owners with lower SES.



Finally, there are substantial relationships between number of servings of fruits and vegetables and who prepares the food, how it is prepared, and who usually shops for the food. Providers who do not prepare the food themselves are substantially less likely to serve fruits and vegetables than providers who do.

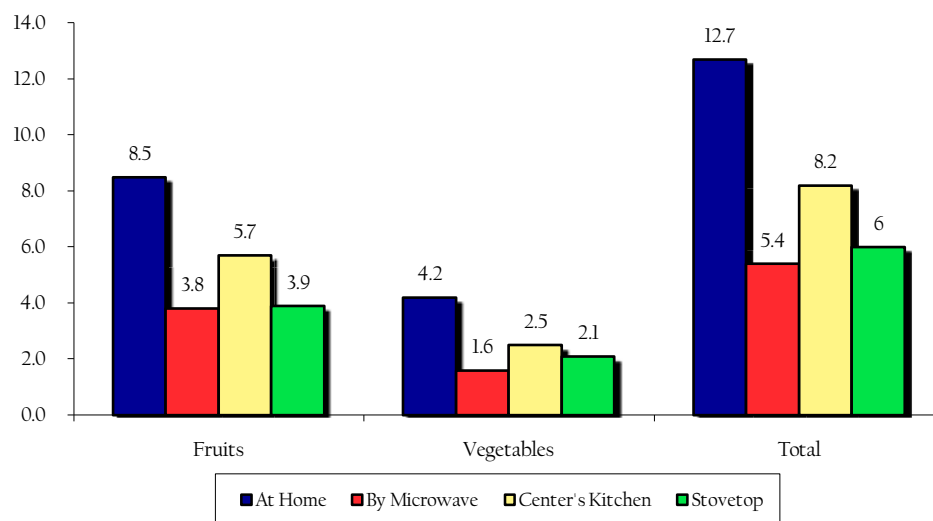


As was noted earlier, there is substantial collinearity between who prepares food, where the food is prepared, and whether a facility is a home or a center. In multivariate models, whether the facility was a home or a center remained strongly associated with fruit and vegetable consumption, while the other two variables lost statistical significance. Therefore, the chart above should be considered tenuous at best.

Those who prepare their food at home (even if they then take it to a center) are far more likely to serve fruits and vegetables. Food prepared at centers is significantly less likely to contain fruits and vegetables. Again, however, this measure is strongly conflated by whether the respondent is operating out of a home or a center, and whether the respondent is an owner or not. And as stated above, this variable did not retain significance in multivariate models.

Nevertheless, even starker is the contrast between respondents who prepare the food at home or in the center's kitchen, and those who admit to only preparing foods in the microwave or on the stove top. The latter group is only half as likely to serve fruits and vegetables as are those who prepare foods at home.

Servings of Fruits and Vegetables per Week, by How Food is Prepared
(Total Respondents, *N* = 714)



While this did not emerge in the telephone survey, it is interesting to note that focus group participants in both El Paso and Midland described changes in their ability to provide their children with stove-top meals because of recent changes to local health codes applied to child care facilities. In both areas, owners had to either retrofit kitchens with restaurant-standard vented hoods or stop cooking on a stove top altogether. This was particularly difficult for medium-sized operators who had recently advanced from a registered home to a commercial storefront, as they describe below.

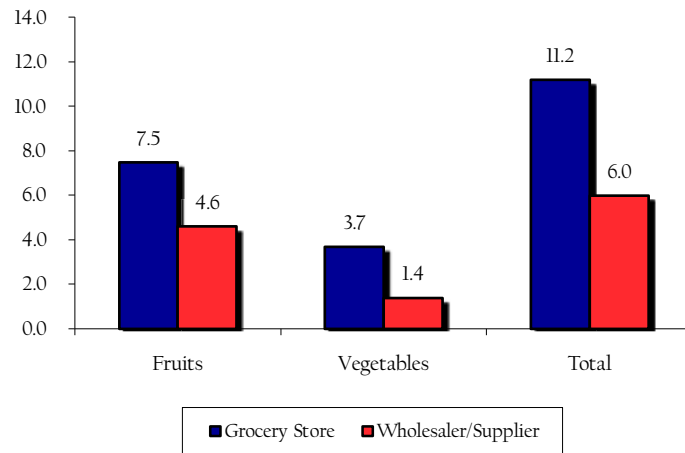
Respondent 1: I saw it happen in Odessa about three to four years ago, and now Midland has picked up on it. You have a year for the vent-a-hood and a year to add automated fire alarm systems. We're in our second year and most of us either elected not to use our range tops anymore ... we can't even use our toaster ovens, our burners ... The way I got around it was to have plate warmers. Everything I buy is precooked.

Respondent 2: I wish I had known about that. Because I went into debt, I mean \$10,000 in debt because they told me that I had to have all that stuff or bring food from home and microwave everything.

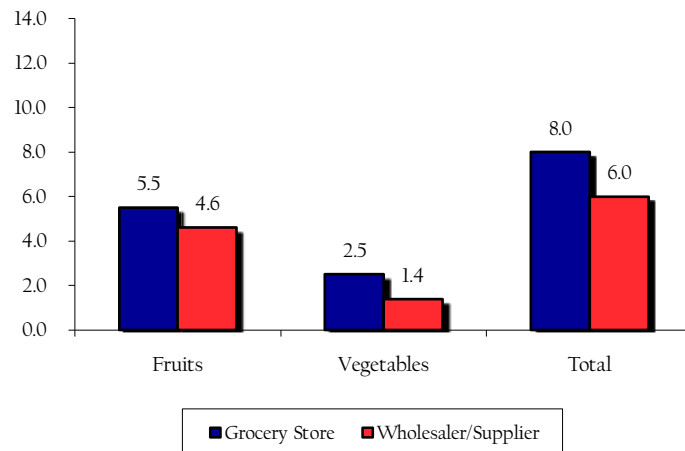


Finally, a small number of respondents ($N = 40$, 5.6% of the total sample) said that a wholesaler delivers their food. Providers who do not go shopping themselves are nearly half as likely to serve fruits and vegetables as are those who do shop for their own groceries. Among centers that serve at least 21 children, the effect remains but is less substantial.

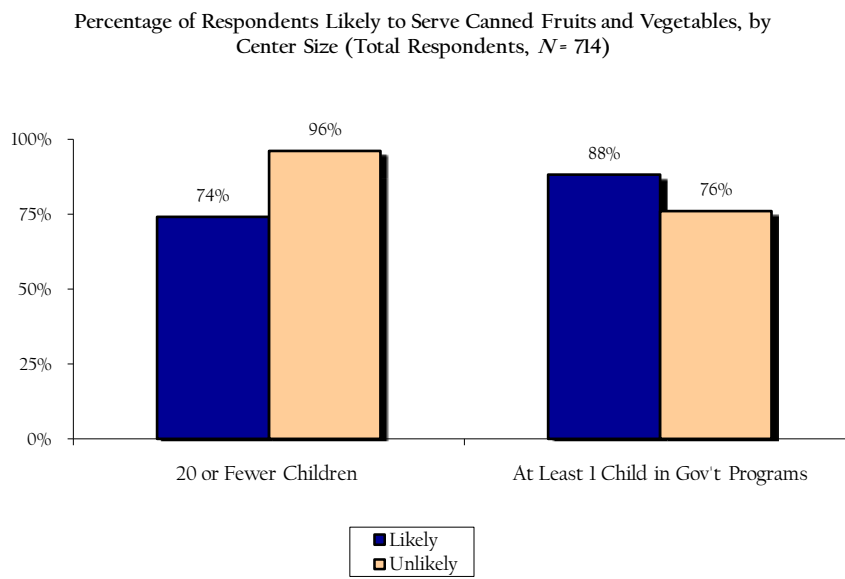
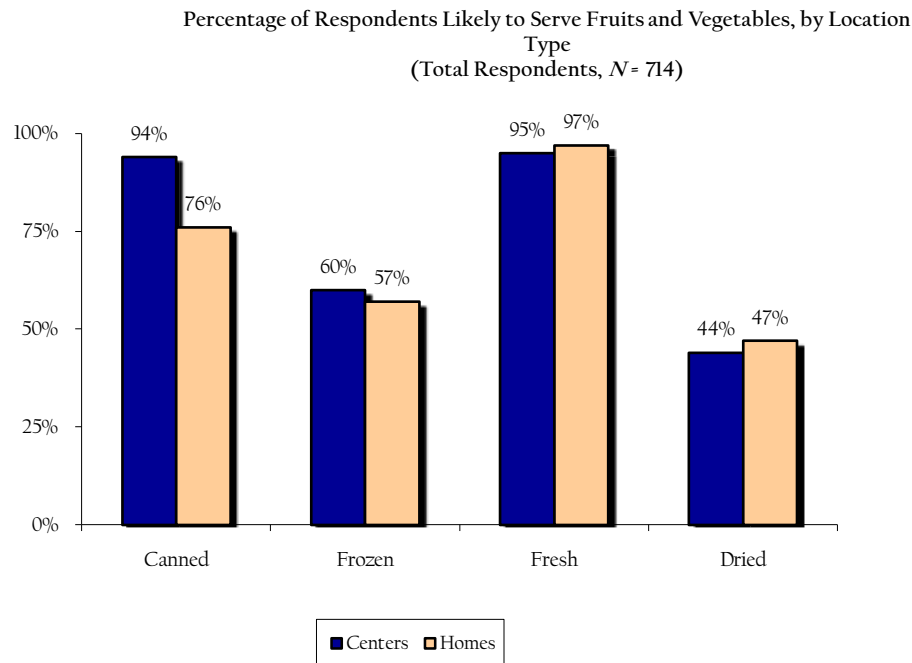
Servings of Fruits and Vegetables per Week, by Food Source
(Total Respondents, $N = 714$)



Servings of Fruits and Vegetables per Week, by Food Source (Centers That Serve More Than 20 Children, $N = 255$)

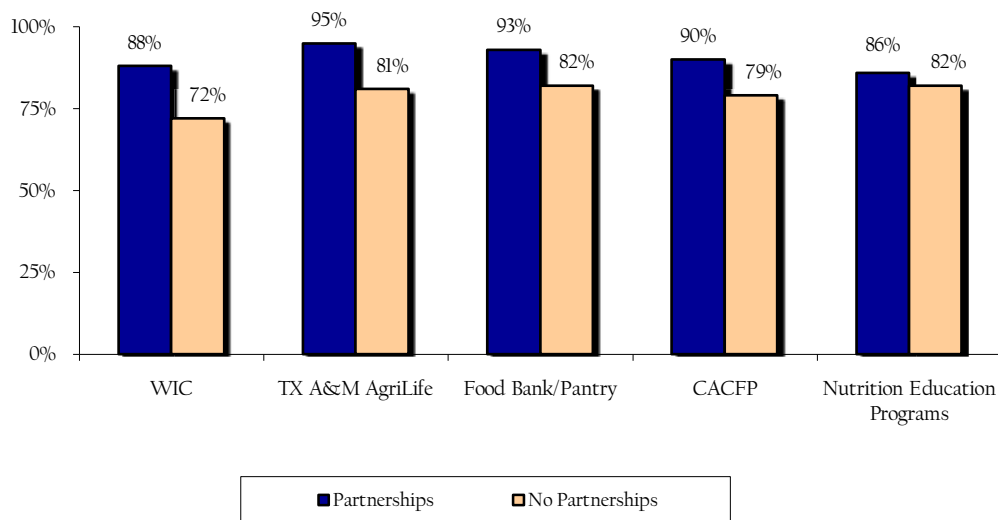


In addition to asking about the frequency of serving fruits and vegetables to children under ten, the study asked about the overall likelihood of purchasing fruits and vegetables in general. In this measure, differences were significant across a number of dimensions. However, the majority of differences are related to the likelihood of serving canned vegetables: Centers are nearly 20 percentage points more likely to serve canned vegetables than homes. Conversely, providers who serve 20 children or fewer are much less likely than larger centers to serve canned vegetables.

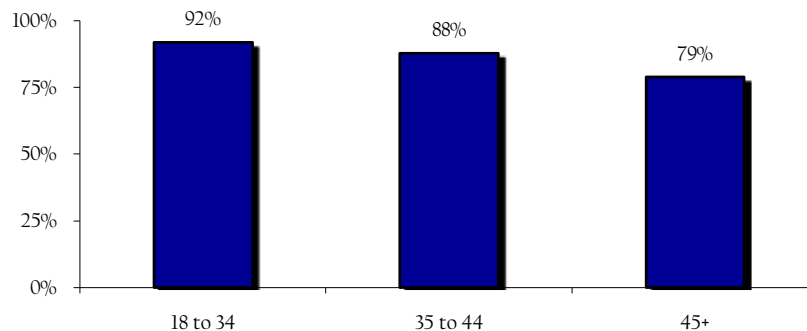


Furthermore, providers who have partnered with various government programs are more likely than others to serve canned vegetables. Finally, younger owners serve more canned vegetables than older owners. This can be interpreted to imply that canned vegetables are more predominant in lower-income centers and in centers with less experienced owners (either in cooking or in managing the center's food intake).

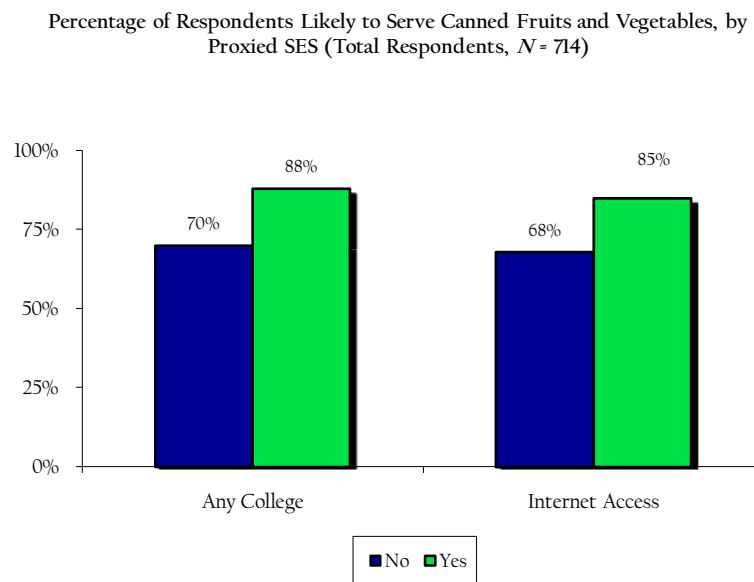
Percentage of Respondents Likely to Serve Canned Fruits and Vegetables, by Partnership With Government Programs (Total Respondents, $N = 714$)



Percentage of Respondents Likely to Serve Canned Fruits and Vegetables, by Age (Total Respondents, $N = 714$)



Finally, owners with higher SES are less likely to serve canned vegetables than are owners with lower SES.



In addition to probing the likelihood of serving fruits and vegetables as a function of packaging (canned, frozen, etc.), the survey measured the likelihood of serving fruits and vegetables during snacks. Although few measures correlated with the frequency of fruit and vegetable servings during snacks, a few key relationships were found.

Specifically, homes are about 10 percentage points more likely to provide fruits and vegetables during snacks than are centers. Second, there is a fairly substantial difference across provider size: While over two thirds of providers who serve 20 or fewer children “always” serve fruits and vegetables during snacks, this was true for just over half of providers who serve over 50 children.

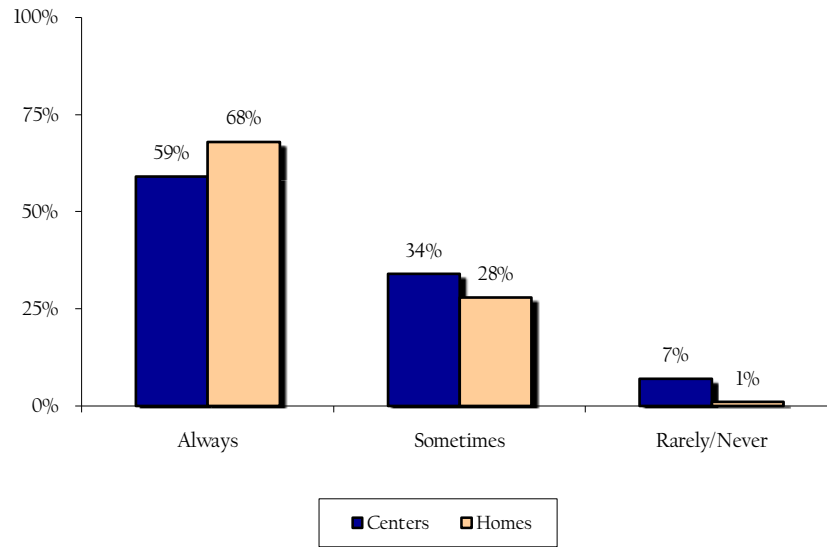
On the basis of anecdotes from focus groups, it can be concluded that those caring for fewer children appear to have more time to engage children in cooking, shopping, and eating. The following quotes from home providers illustrate this point.

You know, they’ll eat spinach. I buy the big leaves, and I’ll never forget the first time I told the kids, “Those are dinosaur leaves.” So instead of saying spinach, I say, “Let’s eat dinosaur leaves.”

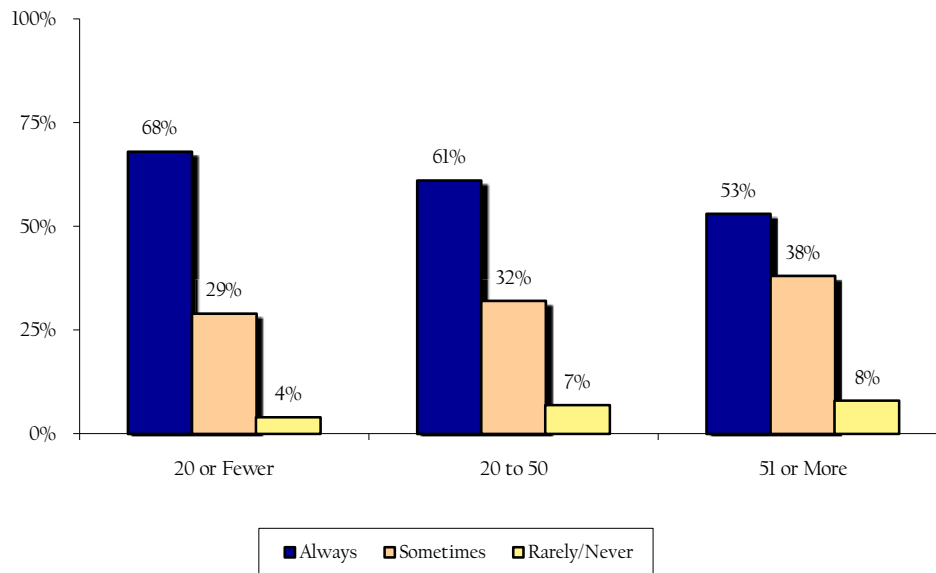
They love everything we cook because it is homemade. I wasn’t serving lunch before, so they would have to package their own lunch. It was only a can of something. Poor kids, for two years it was like that. When we started cooking, I bought this frozen food at Sam’s, and they didn’t like that either. We started preparing everything at the center, homemade, and they love it. Now the parents are like, “The kid’s not eating at home, so how did you cook this?”



Frequency of Serving Fruits and Vegetables During Snacks, by Location Type
(Total Respondents, *N* = 714)



Frequency of Serving Fruits and Vegetables During Snacks, by Number of Children Served
(Total Respondents, *N* = 714)

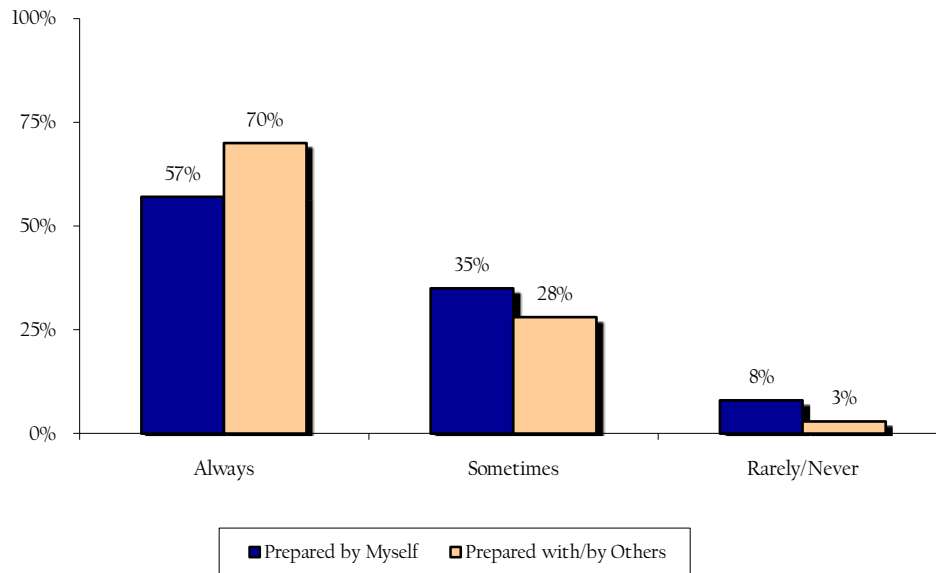


Who prepares the food has a significant impact on the frequency with which fruits and vegetables are served during snacks. Unfortunately, in this respect owners who prepare food themselves lag behind those who prepare food with others and those who have others prepare the food for them.

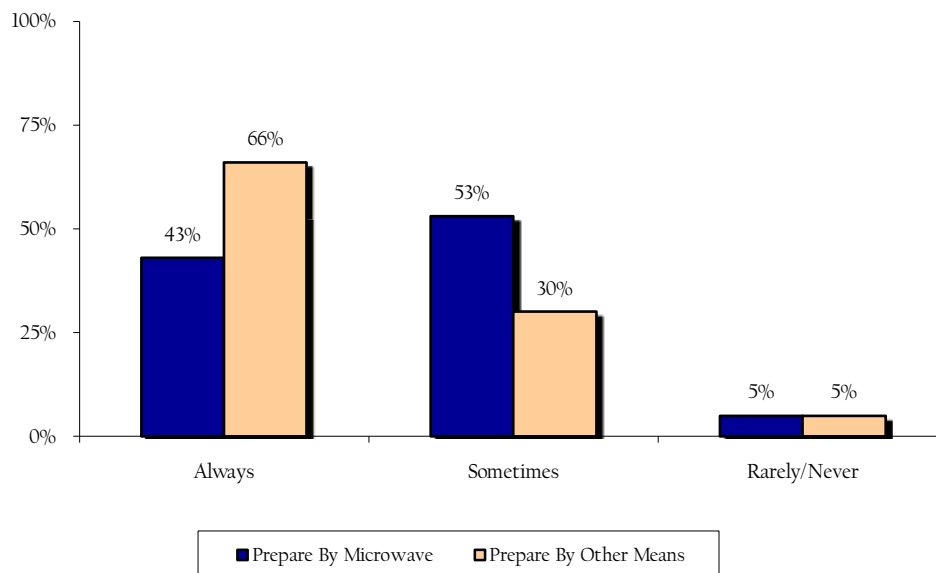


Also, it should come as no surprise that fewer than half of those who prepare foods using a microwave always serve fruits and vegetable in the snacks they provide, in comparison with two thirds of providers who prepare food using other methods.

Frequency of Serving Fruits and Vegetables During Snacks, by Who Prepares Food
(Total Respondents, *N* = 714)

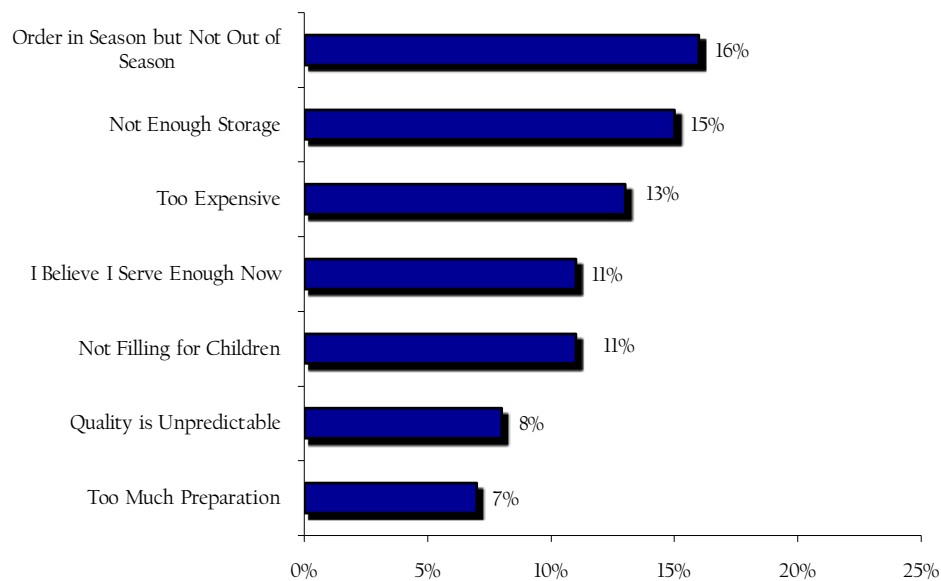


Frequency of Serving Fruits and Vegetables During Snacks, by Preparation Method
(Total Respondents, *N* = 714)

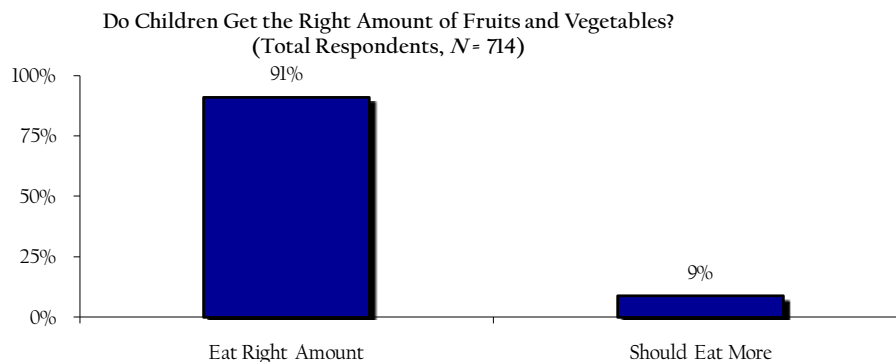


Respondents offered a variety of reasons for which they do not serve more fruits and vegetables during snacks. None of the responses was offered consistently across respondents; in fact, the most frequently cited response, “We order in season but not out,” was provided by only 16% of those asked. As is shown in the figure below, other popular reasons given are lack of storage, expense, and the belief that enough fruits and vegetables are already served.

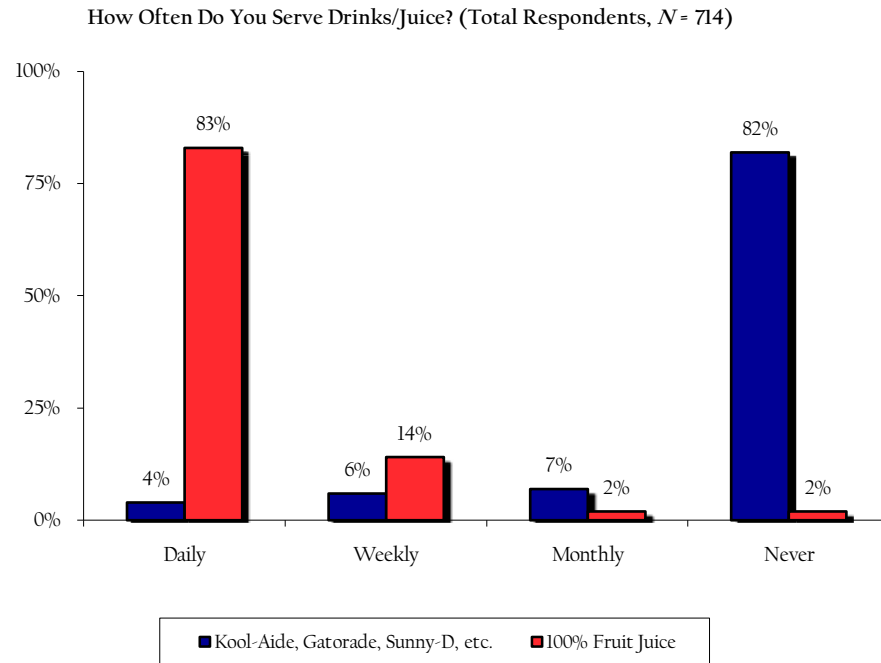
Why Not Serve More Fruits and Vegetables?
(Respondents Who Do Not "Always" Serve Fruits and Vegetables During Snacks, *N* = 251)



As is apparent in the bar chart below, the vast majority of owners believe the children they serve get a sufficient amount of fruits and vegetables already.



In addition to fruit and vegetable provision, we captured consumption of fruit juices in comparison with that of other beverages such as Gatorade or Kool-Aid. Overall, four of five providers said they serve 100% fruit juice on a daily basis, while just about the same number of respondents reported never serving the other drinks mentioned.



Perspectives of Child Care Providers: Food Consumption Outside of Child Care

Discussions arose spontaneously in all focus groups regarding child care providers' perceptions of the job parents do feeding their children outside of the day care facility. Without exception, participants in all focus groups expressed unprompted and serious concern about the dietary well-being of their children outside of care. The questions in this section helped to quantify the intensity of that concern. Overall, providers believe that many of their children come to school hungry in the morning. They also say that parents often complain of not having time to provide nutritious meals at home. Many discussed strategies for ensuring that the children do not leave their care hungry, since they often suspect the children may not have another decent meal or snack until they arrive the next day. The present section offers a glimpse into the depth of concern expressed by providers.

Poor Eating Outside of Child Care

Question 26 Series: Do you feel the statement [INSERT STATEMENT]' is very true, somewhat true, neither true nor untrue, somewhat untrue, or very untrue?

- A: *Children often come to school with fast-food breakfasts from places like McDonald's.*
- B: *Many children are hungry when they arrive in the morning.*
- C: *Child care providers like me spend more time with kids than their parents do and probably know what foods they like.*
- D: *Parents are often surprised to hear their children eat certain foods at child care because they think they do not like those foods.*
- E: *In the evenings, parents often wait outside until their children finish their evening meal rather than take them home for dinner.*
- F: *Children need to eat more at child care on Fridays and Mondays because they probably do not get enough of the right foods.*
- G: *Parents often send their children to child care with junk food or sweets.*
- H: *Many children eat their only real meals at child care centers like mine.*
- I: *Most parents do not introduce fruits and vegetables to their children.*
- J: *Most families today do not eat dinner together.*
- K: *The CACFP does not pay enough to cover snacks, and I spend more than I receive from them to offer healthy snacks.*
- L: *Most parents today do not know how to properly feed their children.*

The study specifically asked 11 questions that in some way tapped into children's food consumption outside of the center. Unfortunately, the most frequent response was that children sometimes arrive at the child care center hungry. Indeed, over four of five providers said that children come for care hungry.

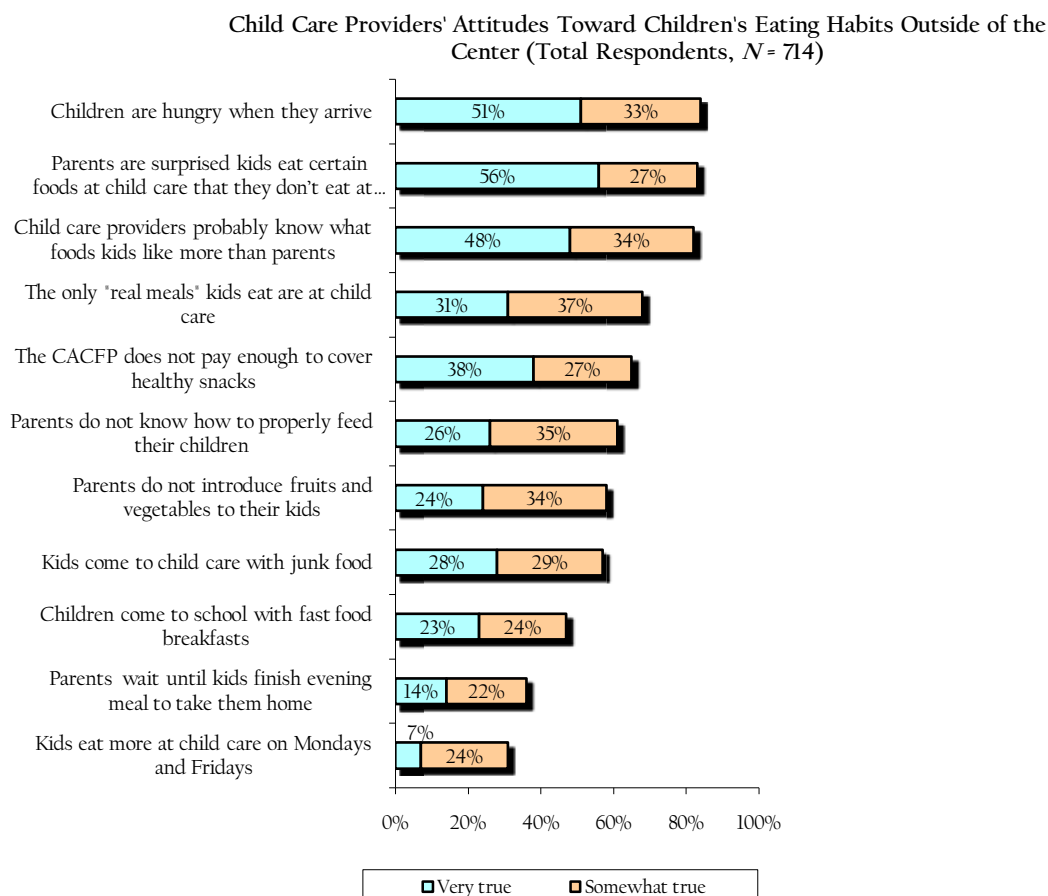
However, there was a wide range of reasons for which child care providers might think that children are hungry. One significant concern is that children are significantly malnourished at



home compared to at the center. To tap into this possibility, we asked whether parents wait until their children are finished with the evening meal at the center before taking them home, and whether children seem to eat more on Mondays and Fridays. Overall, about one of ten providers said such things were “very true” of the children under their care, with another 20% saying it was “somewhat true.”

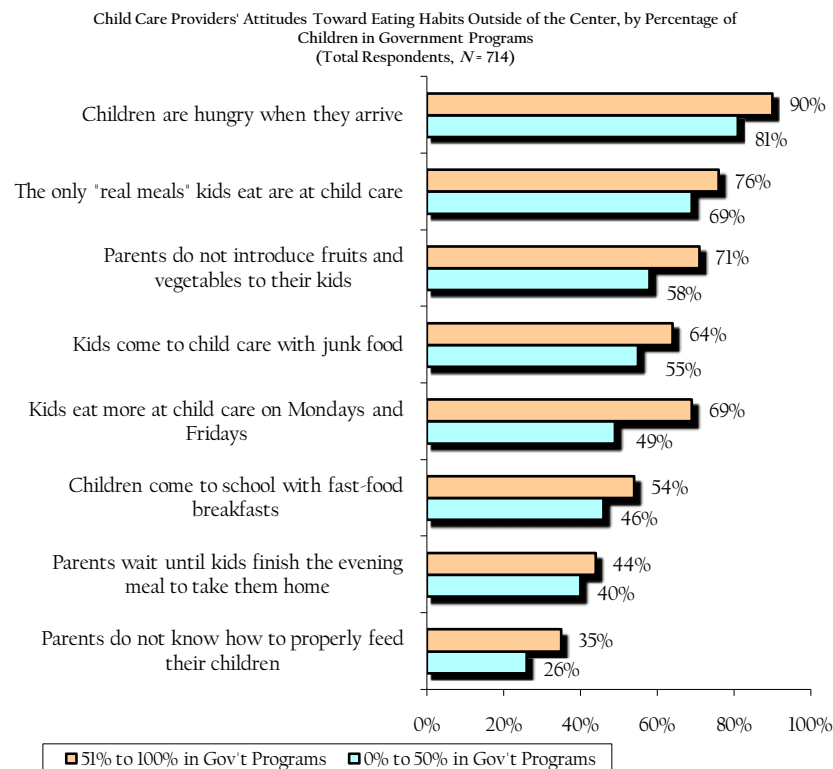
The overall opinion given by child care providers indicates serious pessimism about the capability of parents to properly feed their children. A majority of providers said that each of the following statements was at least somewhat true.

- Parents do not know how to feed their children. (61%)
- Parents do not know what their children like. (82%)
- Children in their care eat better at child care than at home. (68%)
- Parents do not feed children enough fruits and vegetables. (58%)
- Children arrive at child care in the morning with junk food. (57%)



Given that participation of children in government programs can serve as a rough proxy of family income, the factor of centers' partnerships with government programs was measured against the battery of questions regarding providers' perceptions of children's food consumption outside of the center. Nearly every variable showed a significant difference on the basis of income, and always in the same direction—namely, that respondents who perceive that they have more children in government programs were more likely than others to claim the children have poor eating habits outside of the center. It should be noted that differences in such perceptions may be influenced by differences in respondents' sensitivity to the nutritional needs of children on assistance or to the parents themselves, which in turn may affect the respondents' ratings on these questions.

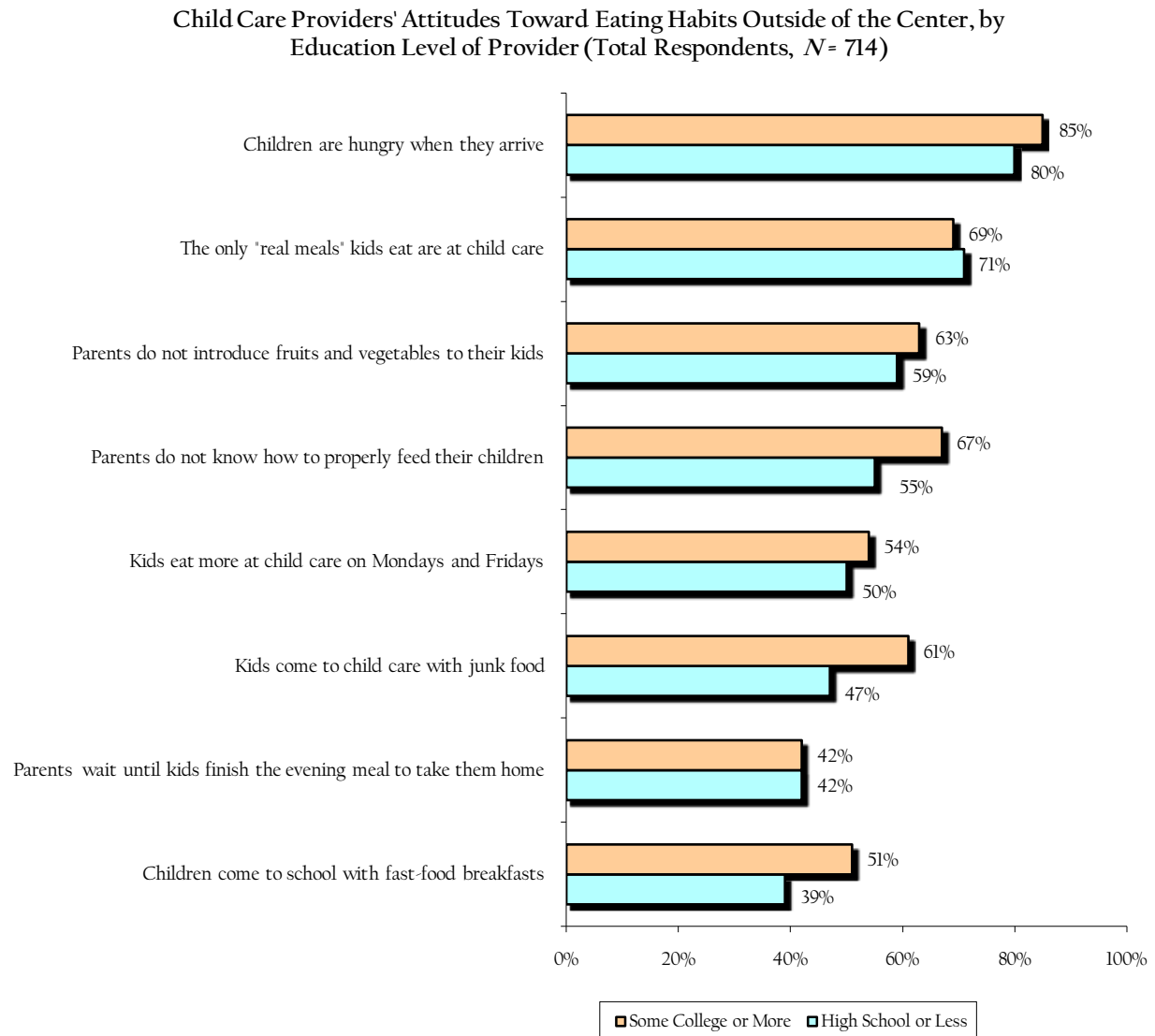
The greatest difference concerned one of the measures tapping into undernutrition at home: Providers for whom a majority of children are thought or known to be on government programs were 20 more likely than others to say that their children eat more on Mondays and Fridays, presumably to make up for poor nutrition at the home over the weekend.



A similarly important comparison can be made between SES and nutrition outside the center, since one might posit that respondents serving low-SES children are more likely to report undernutrition in the home. However, the opposite was true for most variables except for noticing whether parents wait until after completion of the evening meal to take their children home, and whether the children eat more on Mondays and Fridays.



There was a significant difference in consumption of junk food by proxy-SES, in that owners with high educational attainment reported more junk food among their children than did owners with only a high school education or less. The same was true for reports of children arriving at child care with fast-food meals.



With such a large number of questions regarding perceptions of nutritional quality outside of the day care facility, an attempt was made to discover meaningful dimensions in the data—that is, to explore whether the items can be summarized into classes or genres. Factor analysis is a useful technique for uncovering underlying factors, and it was applied to the data. Results of this analysis are presented in Appendix B – Methodology.

Preparation, Consumption, and Other Child Care Activities

During focus group discussions, participants talked about food preparation and styles of eating during child care. Not surprisingly, proprietors of home child care centers often cook for their children, while medium to large centers employ cooks. Each of these situations offers its own set of challenges, with providers at medium and large child care centers being most vocal about issues such as high turnover among cooks and the need to train them.

Sanitation, measuring, kitchen math, labeling. There is a lot for them to learn ... When we get a new cook, we have to train them. [With fruits and vegetables] that's a biggie. Cross contamination. One of the biggies I preach every time I get a cook is serving cold things cold and hot things hot. When it comes down to it, that is one of the hardest things for them to understand.

In most cases, children eat “home-style” whether they receive care in a home or at a larger center. At larger centers, children may eat in the classroom with the teacher, or even cafeteria-style at very large centers. In many cases, focus group participants discussed the need to model “kitchen table behavior” for children, once again lamenting the lack of training many children receive from their parents. They view a large part of their mealtime job as teaching children how to eat.

I mean, they spoon it down like they've never had a meal in their life, most of the time. It's a terrible situation. The home situation is terrible ... They eat out at McDonald's and things like that. A meal to sit down and eat ... is an oddity. It's not a normal thing anymore.

A lot of kids come to us not knowing what celery is. It takes a while ... I had one kid who didn't even know how to hold a spoon ... I had one that was two years old and still on pureed food. He didn't know how to eat regular table food. A lot of moms, it's easier to stick with Gerber than cook dinner.

The quantitative survey further investigated these two broad dimensions of food provision at child care centers: preparation of food and style of consumption (such as how and where food is prepared and eaten). The study also measured two key covariates to healthy eating: watching television during meals and physical exercise.



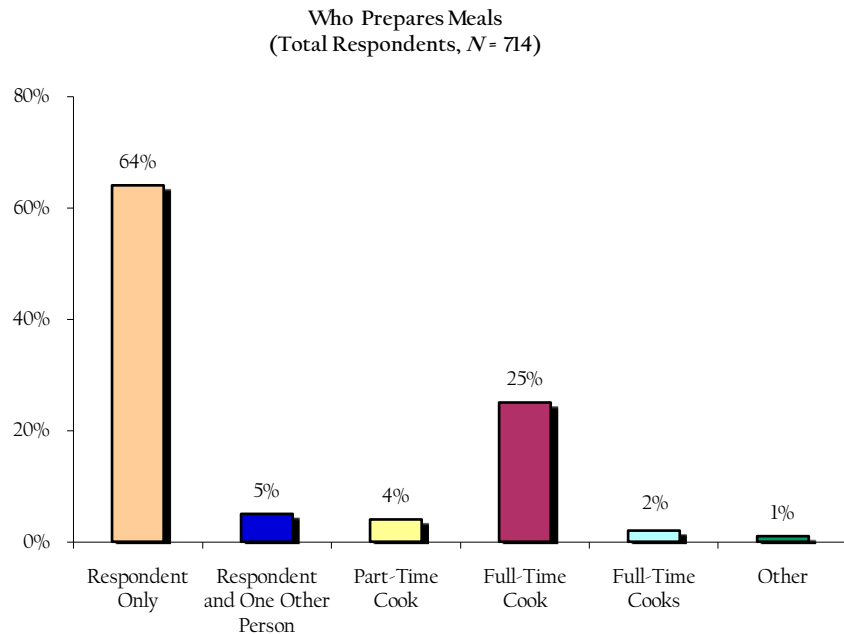
Preparation of Foods

Question 11: Which of the following best describes who prepares meals and snacks?

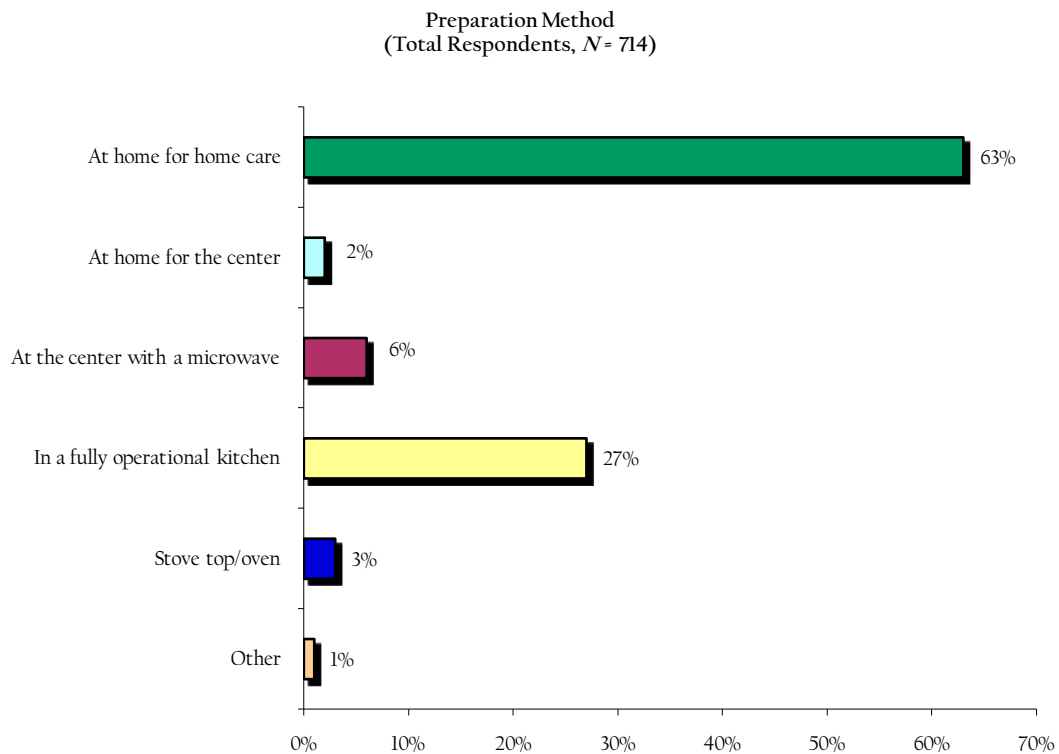
Question 12: Which of the following best describes the way meals and snacks are prepared at your facility?

Question 14: How often does someone go grocery shopping for foods to serve at your registered home or center?

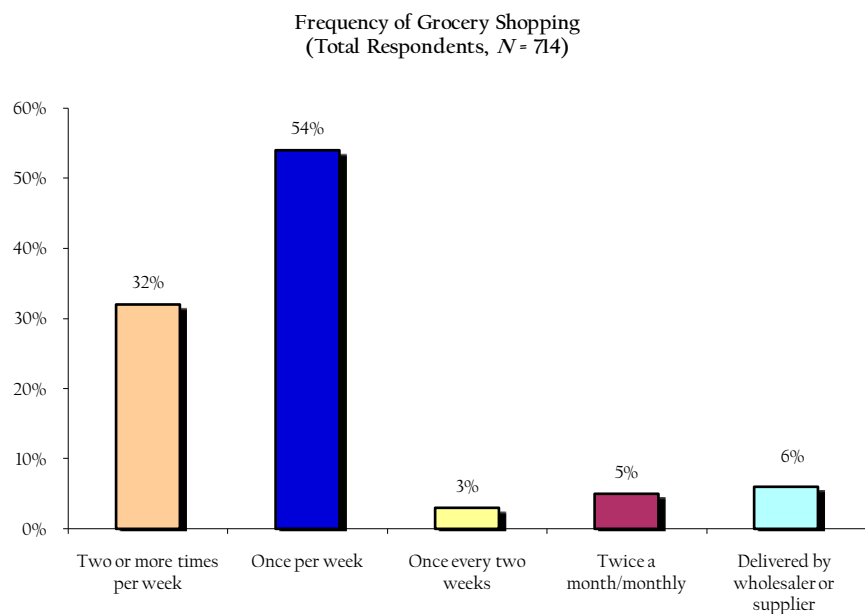
Nearly two thirds of the respondents prepare the means served at the child care center themselves. A quarter of child care centers have a full-time cook.



Most respondents prepare meals at home. A minority use a fully operational kitchen. Six percent said they use a microwave at their center. Of these, over half use a stove top as well.



Over four of five child care providers shop for groceries at least once a week.



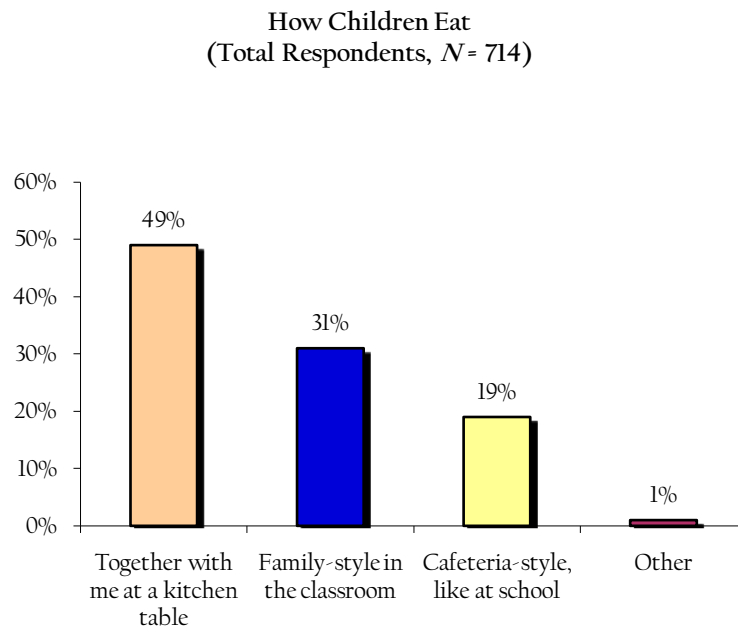
Children's Eating and Play Practices

Question 34: Which of the following best describes the way your preschoolers eat?

Question 27: How often do the children at your child care center watch TV or DVDs while they are at the center?

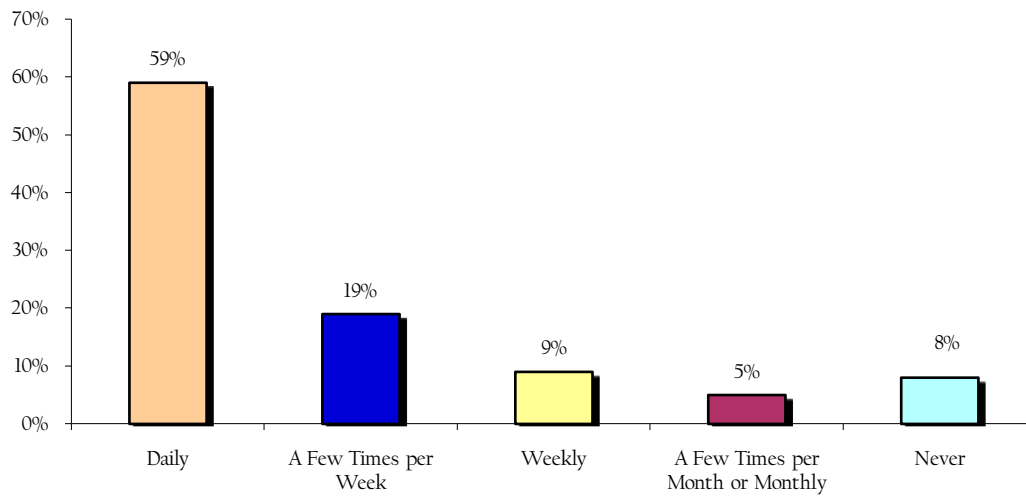
Question 28: How often do the children at your child care center get at least 60 minutes of physical activity during the day?

About half of children in a home-based child care facilities eat at a kitchen table. Of those at centers, the majority eat around a table in the classroom, while a minority eat “cafeteria-style” at a long table.

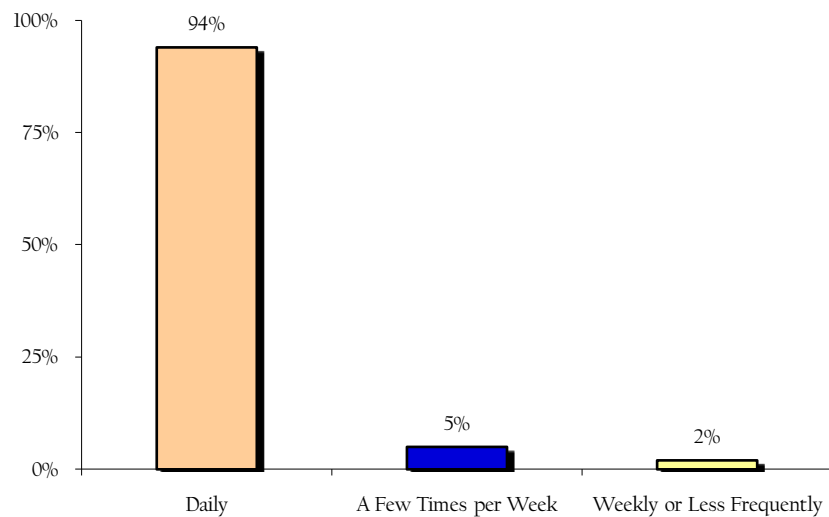


Only 8% of child care providers reported “never” allowing the children under their care to watch television. Three of five watch television at the center “daily.” On the other hand, over nine of ten respondents at centers said their children get at least 60 minute of exercise daily.

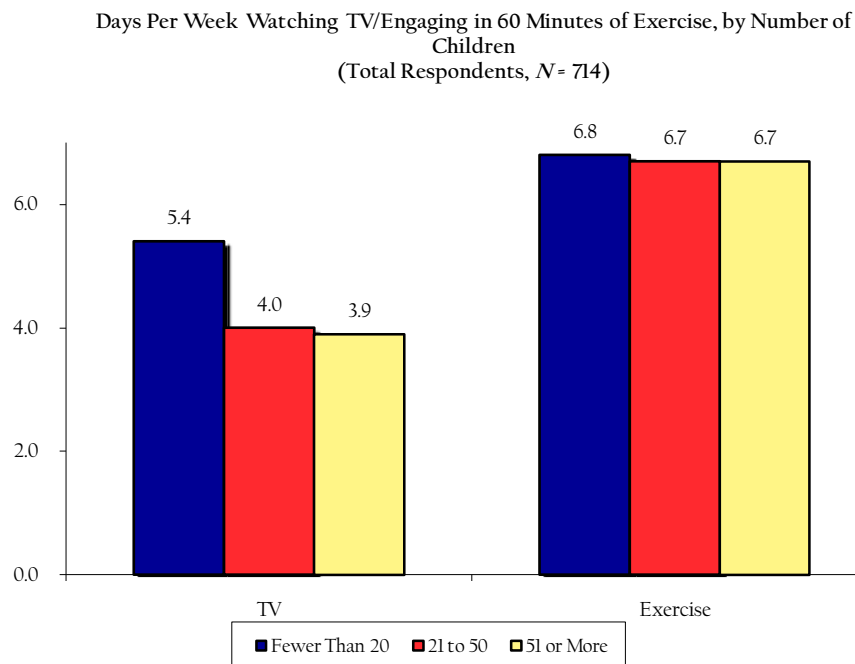
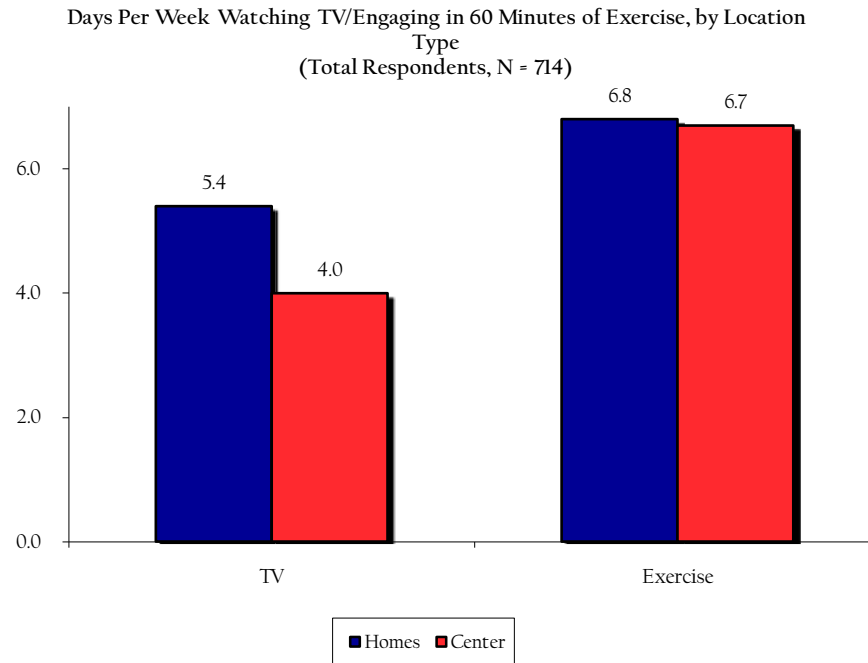
Frequency of Watching TV at Center
(Total Respondents, $N = 714$)



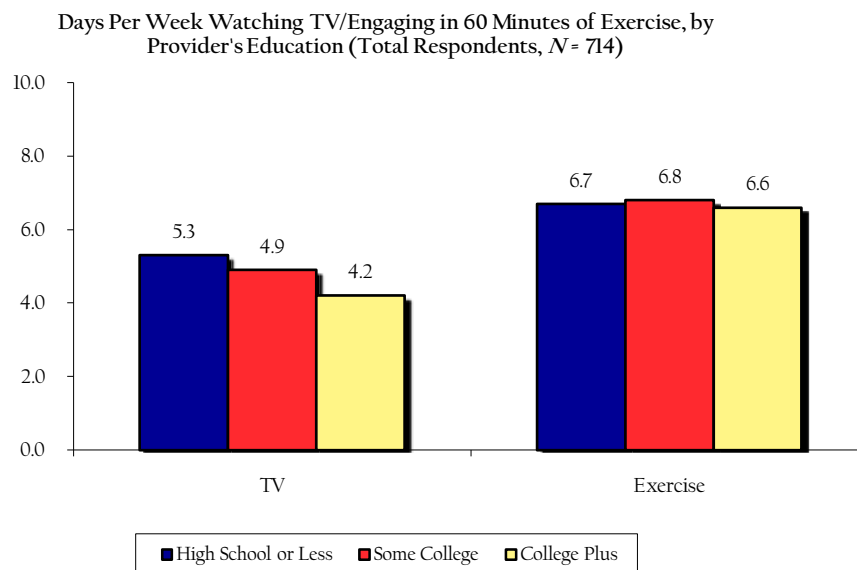
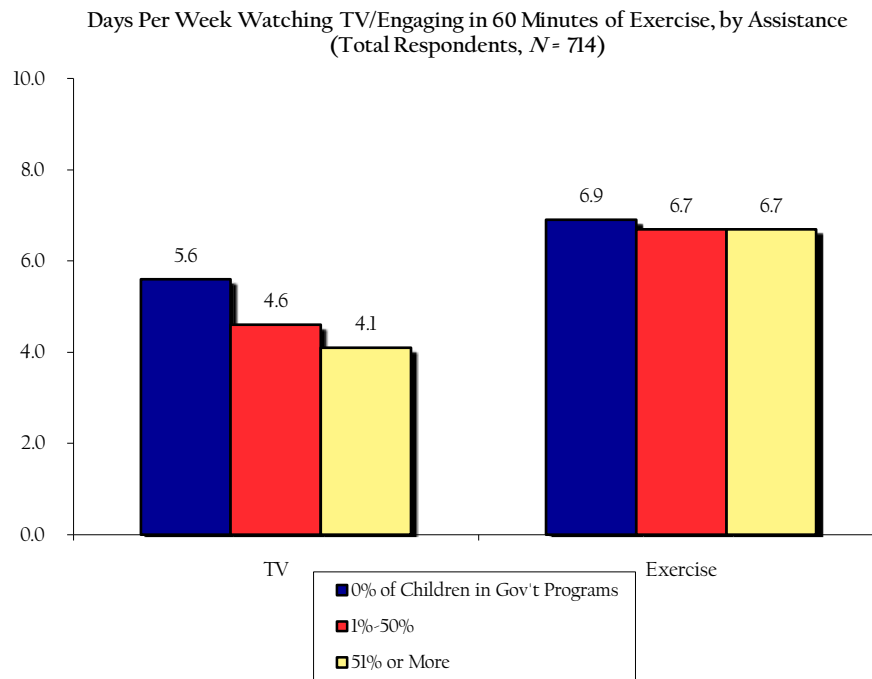
Frequency of Engaging in 60+ Minutes of Physical Exercise at Center
(Total Respondents, $N = 714$)



Television use is more frequent in homes than at centers, while there is no difference in exercise by location type. As we have seen before, when there is a relationship with location type, there is almost always a relationship with center size, as smaller centers (that is, homes) reported higher television use than larger centers.



Television use is a third more frequent at centers where fewer than half of the children are in government programs than at centers where most children are in government programs. This would suggest that centers catering to higher-income families permit more television viewing than do centers serving lower-income families. On the other hand, owners with only a high school education allow more television viewing than do owners with at least a college degree.



Educating About Food Consumption

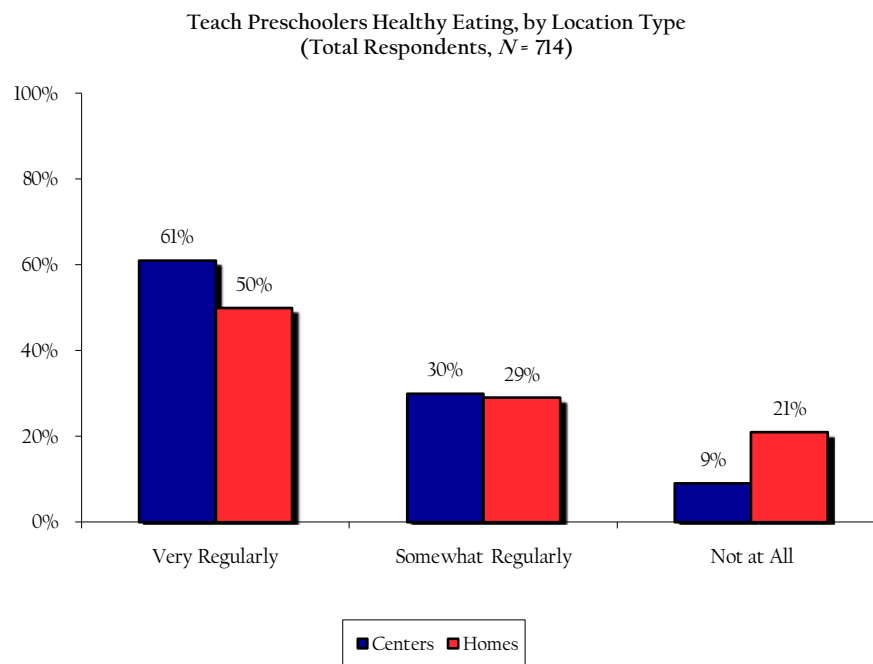
The study probed whether child care centers provide regular lessons about healthy eating and whether they have materials for such lessons.

Education of the Children

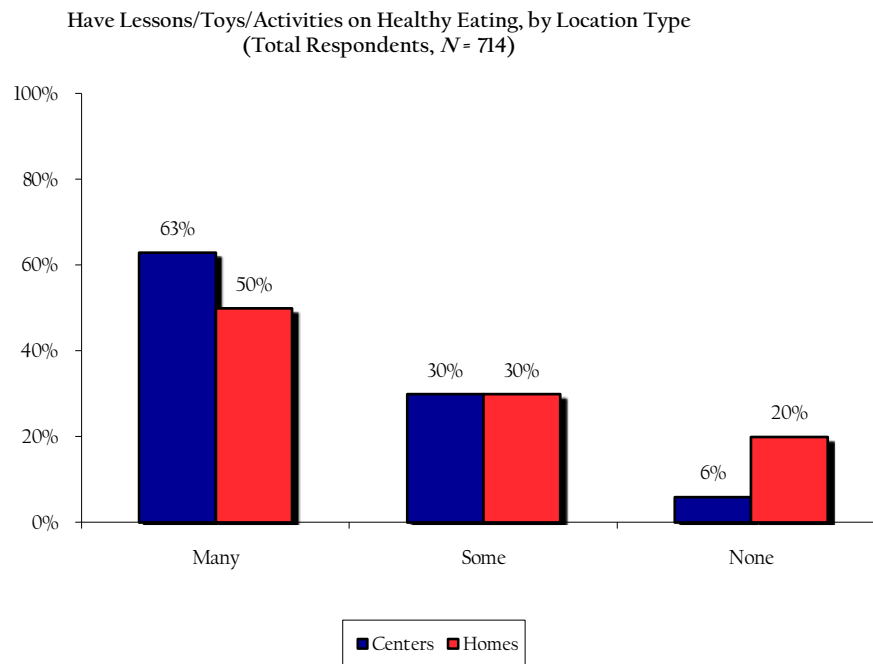
Question 26n: We have regular lessons for our preschoolers about healthy eating.

Question 26o: We have many lessons, toys, and activities to guide our teaching about healthy eating.

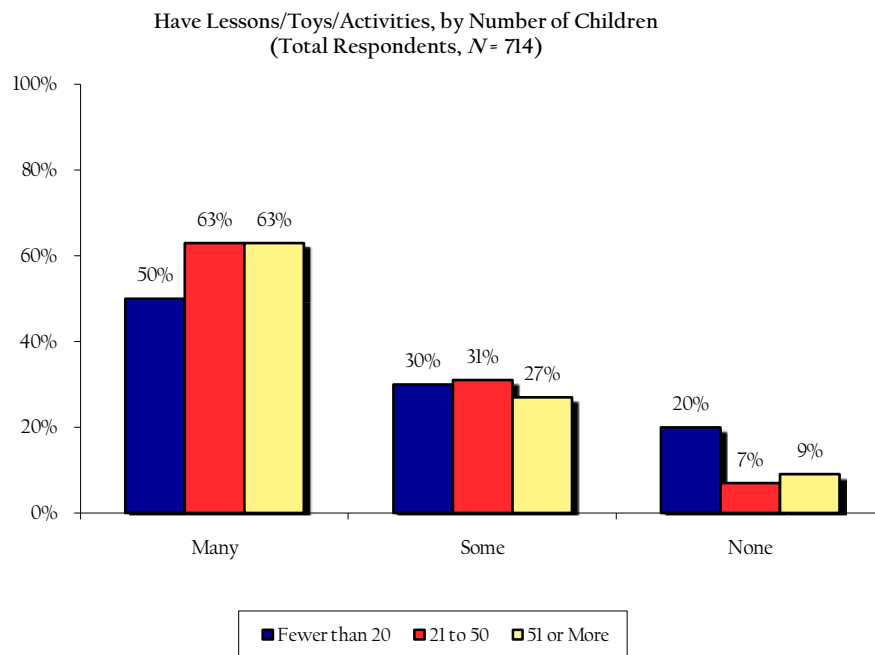
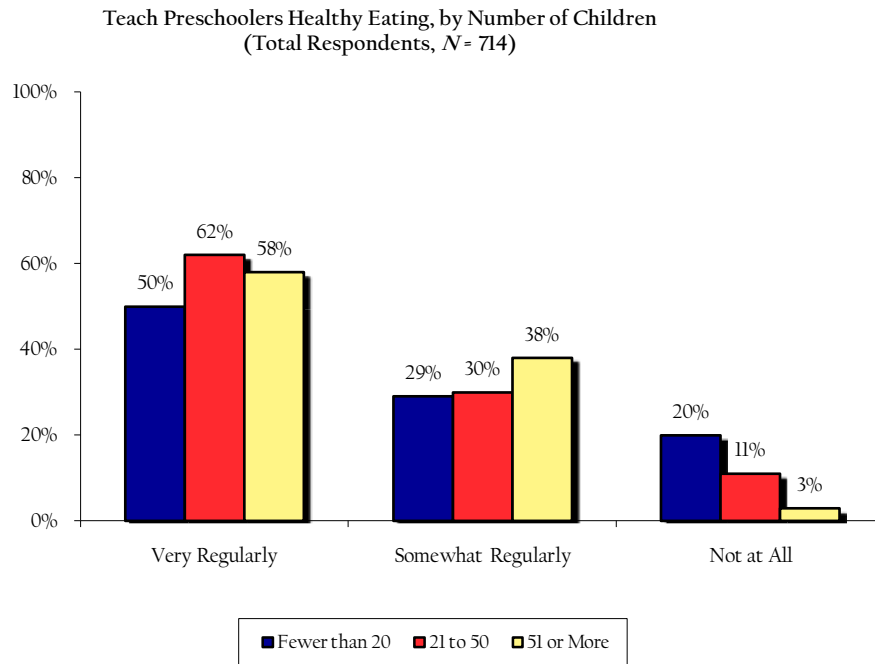
Providers at day care centers reported teaching their preschoolers about healthy eating about 10 percentage points more frequently than home day care providers.



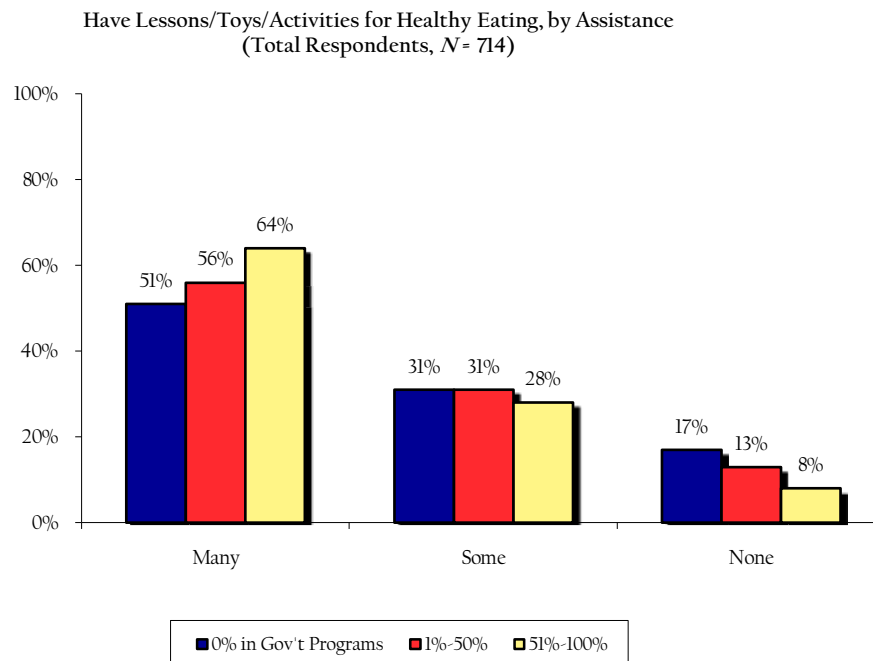
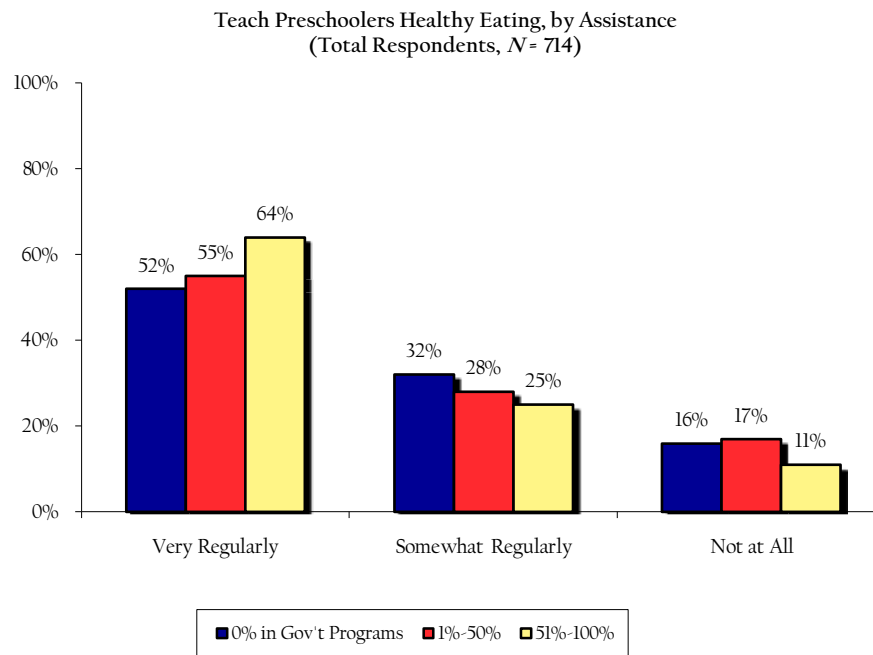
Similarly, centers have more toys, activities, and lesson plans relevant to healthy eating than home-based facilities do.



One of five providers at small child care facilities does not teach the preschoolers about healthy eating at all, and one of five does not have toys or other items associated with teaching about healthy eating.



Centers at which most children participate in a government program are somewhat more likely to teach healthy eating to their preschoolers than are centers at which fewer than half of the children participate in a government program.



Education of the Providers

Question 35a: How helpful would [INSERT ITEM] be in helping you serve more fruits and vegetables?

- A: Recipes
- B: Lesson plans
- C: More training for your cooks
- D: More information about the nutritional value of fruits and vegetables
- E: More information on storage of fruits and vegetables
- F: DVDs, videos, or books for children showing healthy foods, including fruits and vegetables
- G: Cheaper products
- H: Ideas for young children
- I: A newsletter via the Internet
- J: An Internet site with recipes

Question 41a: What additional training would you like to have? (unaided)

Question 41b: Would you like to have additional training in [INSERT ITEM]? (aided)

The overall number-one motivator to serve more fruits and vegetables is either cheaper products or higher levels of reimbursement. Be that as it may, child care providers expressed a strong desire for additional help in getting their children to eat a more balanced and healthy diet. They are most interested in general ideas about how to teach young children; new materials for teaching, such as DVDs, toys, and the like; and receiving ideas and recipes to enable them to serve more fruits and vegetables in ways that will appeal to their children while offering variety and filling them.

[What we need] is cooking training our cooks can attend, so we can have what is cost-effective and nutritional for our children, so that we can both get a winning situation where they're eating right and it's balancing our budget. Maybe even a cookbook with different ideas in it.

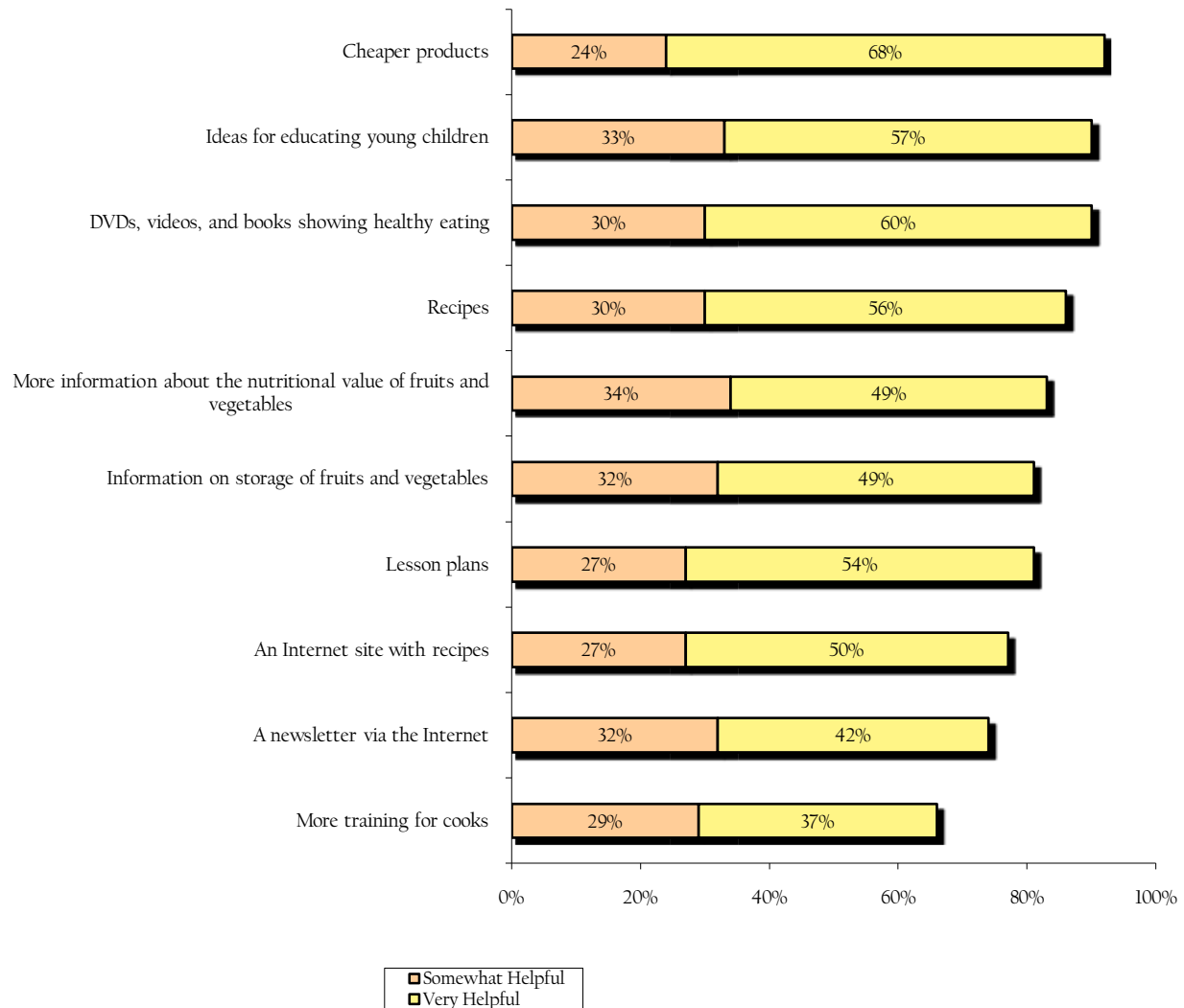
You need training on DVDs and to be able to choose if you want Spanish or English.

While not specifically probed in the telephone survey, during discussions focus group participants often cited a need for training and tools they can use to communicate or teach nutrition information to parents. They discussed the parents' sensitivity around food or nutrition issues, especially in cases of children who tend toward obesity, as well as the difficulty of setting boundaries about bringing junk food to child care.

My advice would be to make something short and to the point. Have it online. Have the parents view it. Parents need to print it out and bring it to the provider [to whom] they're bringing their child there, as one of the requirements. Give them a three-month period from the day of admission. We need to know for sure they viewed that video because literature is great, but some parents don't read.



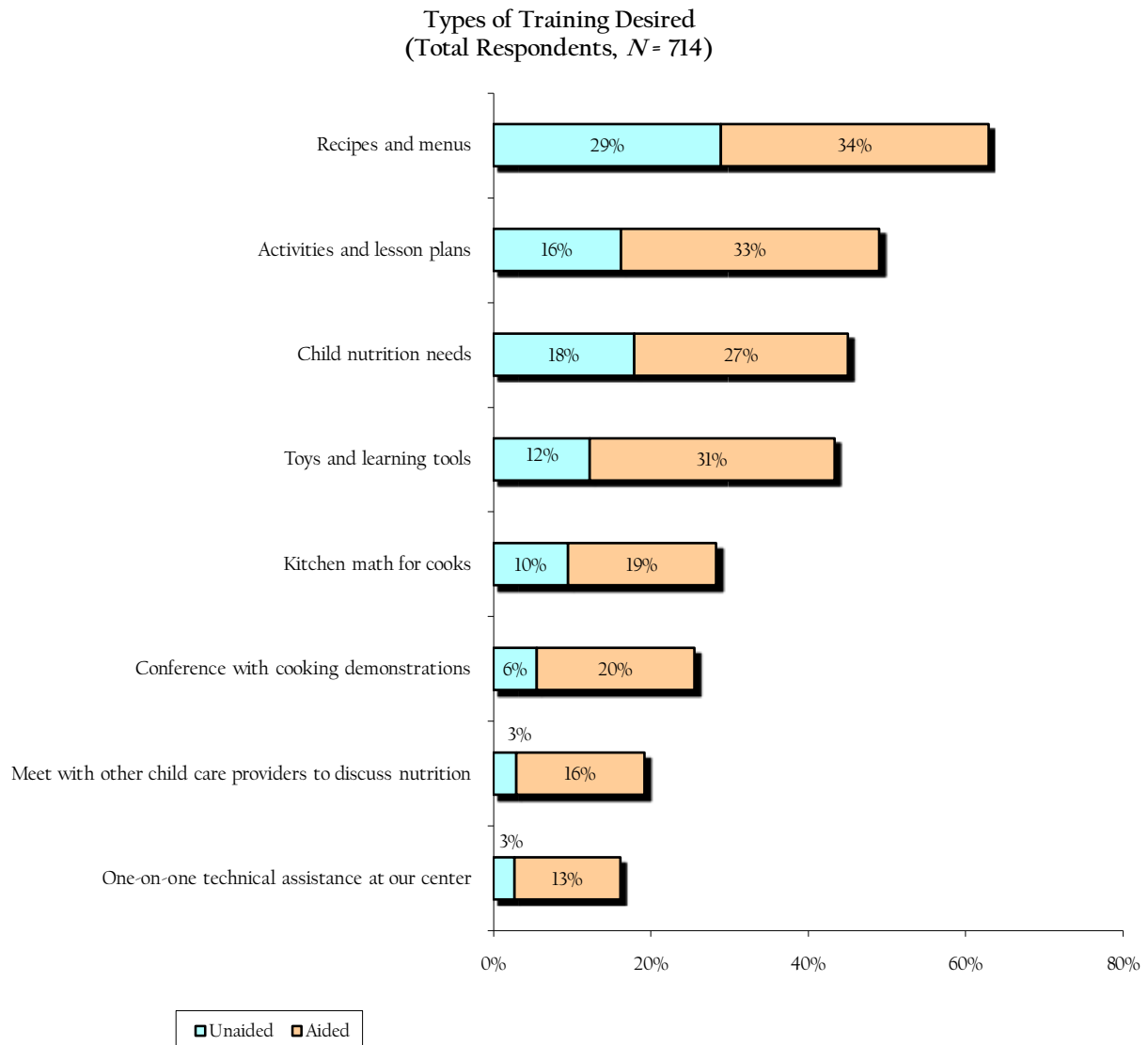
Perceived Helpfulness of Types of Training (Total Respondents, *N* = 714)



A factor analysis similar to the one described earlier was developed for these items. Unfortunately, only two factors emerged, one of which contained only a single item: cheaper products. All the other items loaded onto different factors. Thus, the results of the analysis were inconclusive and are not provided here.



In a second set of questions, respondents were asked (unaided) how they thought they could get more support to serve fruits and vegetables. These questions were followed by aided questions about their most frequent responses. In this battery, respondents most frequently said the best ways to help them serve fruits and vegetables were recipes and menu options. Activities and lessons plans were found to be important as well.



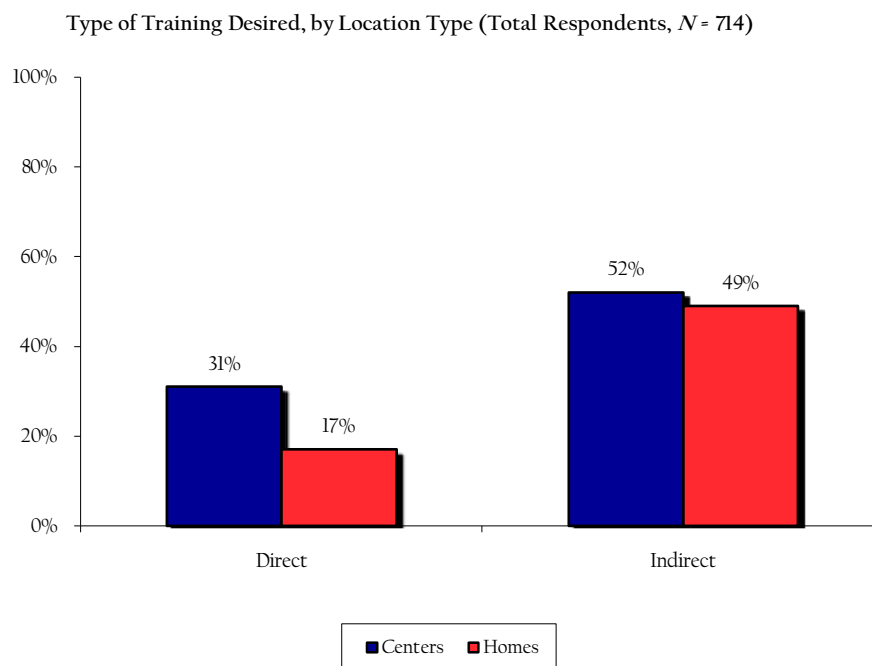
Again, a factor analysis was conducted to explore whether there are underlying dimensions in the training battery. Overall, this second battery of training questions clearly loaded into two factors: an “indirect” training factor, which included activities, recipes, and toys; and a “direct” or interactive training factor, which included meeting others, attending conferences, and one-on-one assistance. (See the Appendix B – Methodology for factor loadings.)

Overall, indirect training is more in demand than direct training.

I've been to El Paso, Dallas, Lubbock, Abilene for trainings that I've had to have. It's not cost-effective to have us going all over the state for these trainings they require you to have.

Providers at centers are generally looking for training more than are providers who work out of homes, with a particular focus on direct rather than indirect training.

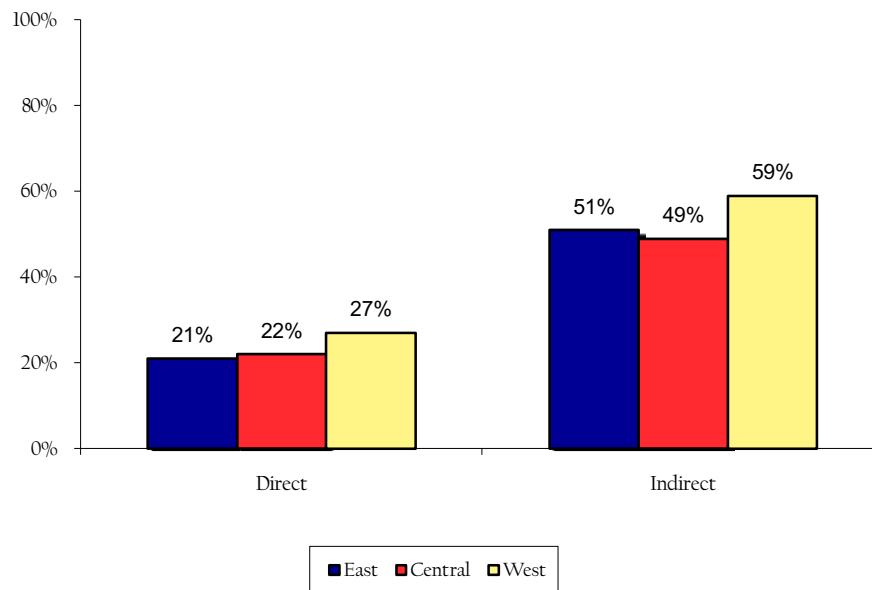
Send a nutritional rep while the kids are asleep ... You come to me so I have somebody look me in the face and tell me what I'm supposed to be doing. That's the only way I'm going to process, with someone showing me.



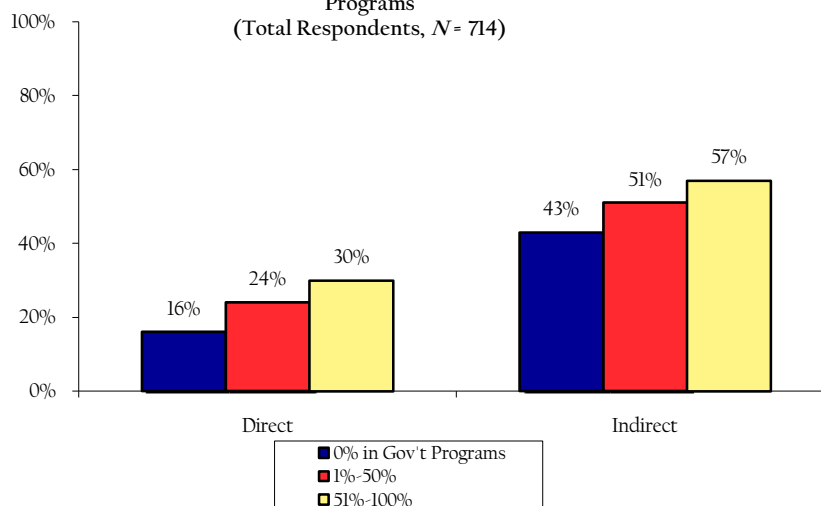
Respondents at centers located in the western part of the state are more desirous of both types training, and particularly indirect training, than are those at centers located in other parts of the state.

The strongest index of desire for training among respondents is the percentage of children at their centers who are in government programs. In fact, respondents with a majority of children in government programs are twice as likely to want direct training than are those without children in government programs.

Type of Training Desired, by Location in Texas
(Total Respondents, $N = 714$)



Type of Training Desired, by Percentage of Children in Government Programs
(Total Respondents, $N = 714$)



Zobey Materials

Question 29: Did your child care center receive the Zobey materials?

Question 30: Have you used the Zobey materials with children at your center?

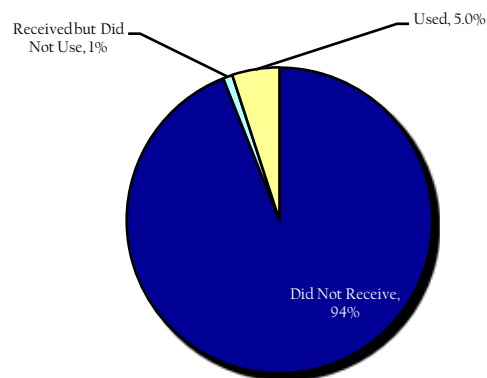
Question 31a: How useful did you find the Zobey materials in helping to encourage your children to be physically active?

Question 31b: How useful did you find the Zobey materials in encouraging healthy eating habits?

Question 33a: Would you like to receive materials like the Zobey DVDs, children's books, or magnets from WIC or the CACFP program in the future?

Overall, only about 1.5% of the respondents had ever received Zobey materials, greatly limiting the present survey's ability to test the efficacy of Zobey.

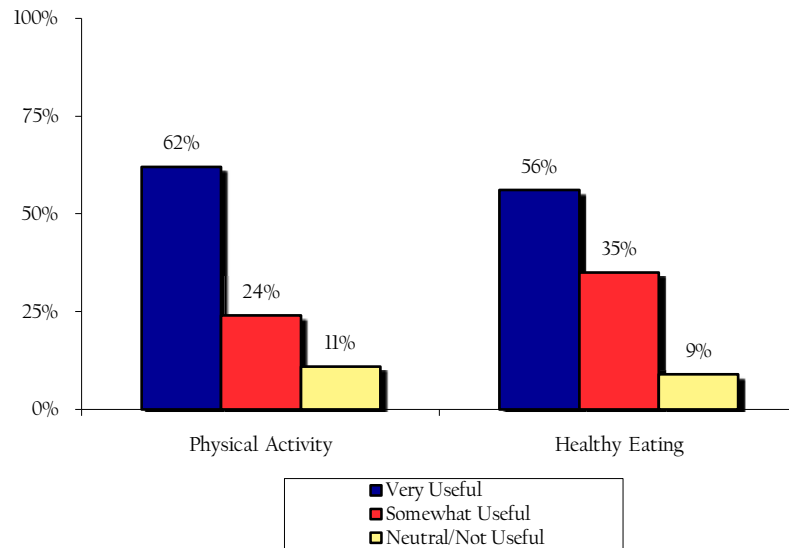
Use of Zobey Materials
(Total Respondents, $N = 714$)



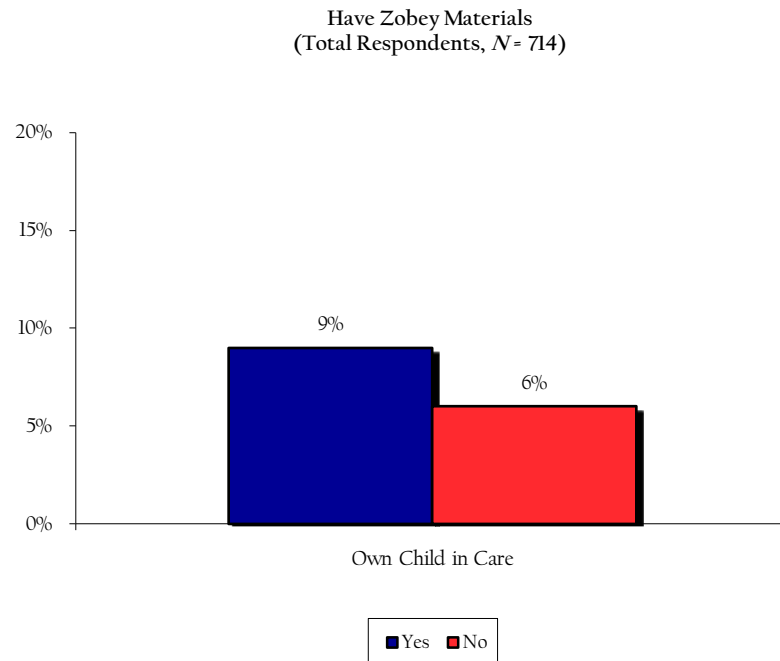
Of those who had received any Zobey materials, the majority said that they were very useful for the promotion of both physical activity and healthy eating.

I put it on during day care. They start dancing, they start jumping. Everything on the CD, they start doing it.

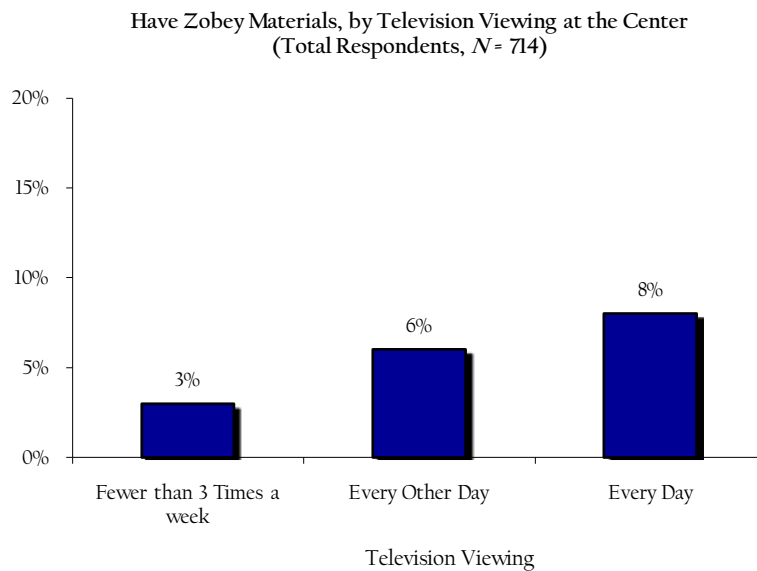
Usefulness of Zobey in Promoting Physical Activity/Healthy Eating
(Those Who Used Zobey, $N = 34$)



Again, although the sample size is small, there is nevertheless a significant relationship between having one's own children at one's facility and increased likelihood of having received the Zobey materials. This may be because the providers received it at WIC for their own children.



Another significant finding is that centers that make frequent use of television were more likely to obtain Zobey materials.



Partnerships and Policies

The quantitative study indicates that centers that have partnerships with government entities benefit from the nutritional information they receive from their partners. Focus group participants's responses were mixed in terms of whether they had partnerships with nutrition programs. The study measured the degree to which child care providers have partnered with various government entities on nutrition education materials and on eligibility information.

Partnerships

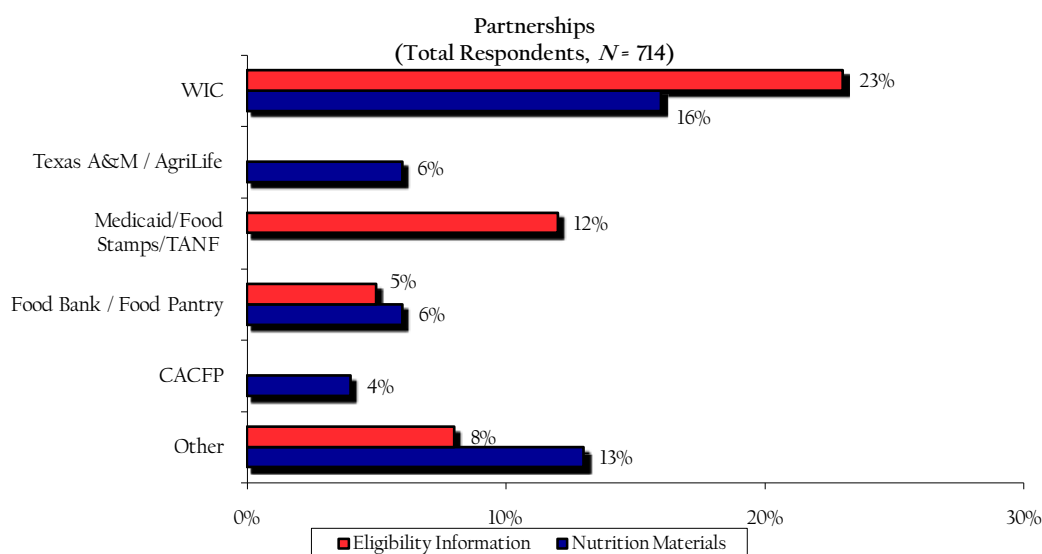
Question 36: Have you ever partnered with the WIC Program/Texas A&M/Texas Extension or AgriLife/Food Bank or Food Pantry/CACFP staff/any other program to provide nutrition education materials for parents or your staff?

Question 37: Have you ever partnered with the WIC Program/Medicaid, Food Stamps, or TANF/Food Bank or Food Pantry/CACFP staff/any other program to provide eligibility information for parents or your staff?

Almost a quarter of all child care centers have partnered with WIC on eligibility information; about a sixth have partnered with WIC on nutrition information.

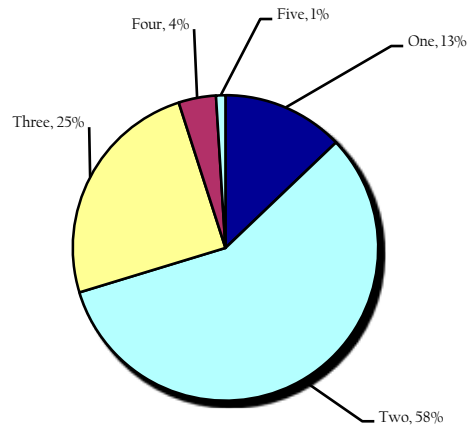
I had WIC come out and they talked about the program WIC, but it wasn't nutrition training ... it's more with infants, I would think, especially encouraging breast-feeding over formula or encouraging them to introduce table foods, those types of things. It happens a lot with parents, but I do have to say, it drops off as they get older.

My food program lady hosts a nutrition class to give us ideas on what to feed the kids.

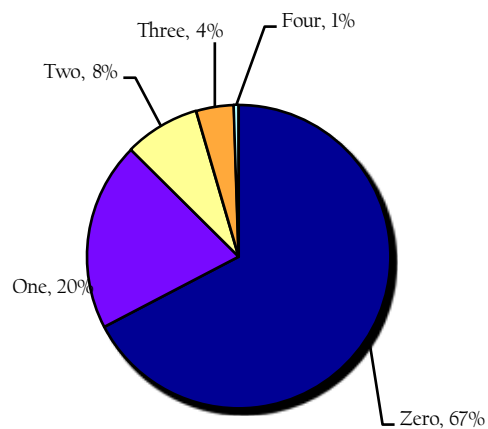


Every center represented has partnered with at least one program for nutrition educational materials, while fewer than half have partnered on eligibility information.

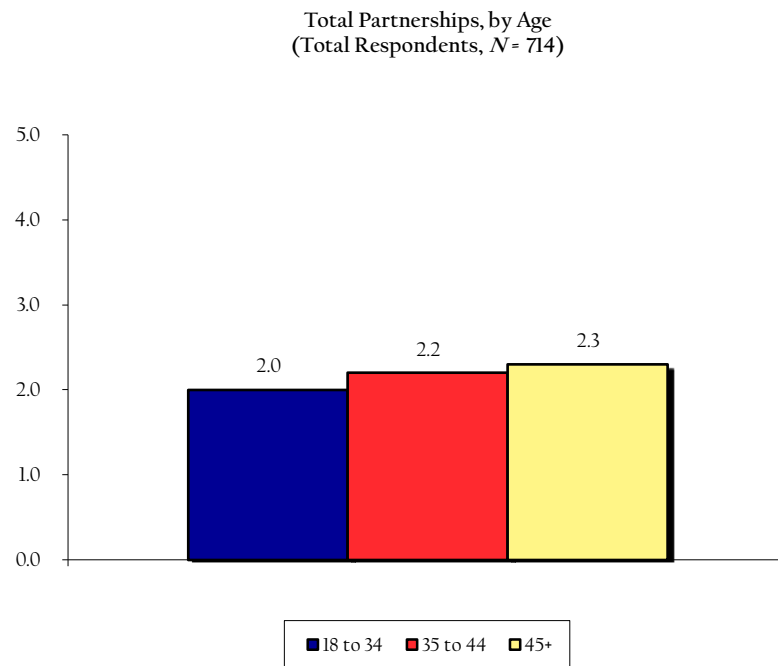
Number of Nutrition Education Material
Partnerships per Center
(Total Respondents, $N = 714$)



Number of Eligibility Information Partnerships per
Center (Total Respondents, $N = 714$)



There is a small but significant relationship between partnering and age of the respondent, in that older respondents are more likely to have said they partnered.



The number of partnerships with governmental and other types of programs varies across a wide range of variables. First, such partnerships are far more prevalent among child care providers who are located at centers rather than in homes. They are also far more prevalent at centers with sites outside the state of Texas.

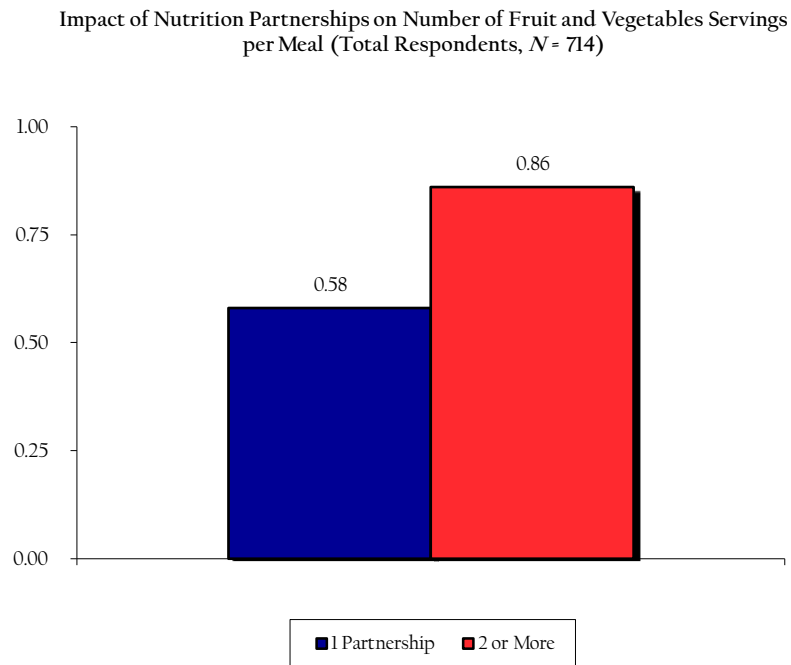
Partnerships are less common at centers located in the eastern portion of the state and at centers that do not serve children under the age of one. Finally, partnerships are formed more often with high-SES owners, as indicated by the fact that they are more common among owners with some college or more and among those with Internet access.

Total Centers with Eligibility Partnerships

<u>LOCATION TYPE</u>	<u>Percent</u>
Home	27
Center	43
<u>STATE LOCATIONS</u>	
All centers in TX	41
Some outside of TX	73
<u>REGION</u>	
Eastern region of state	27
Central region of state	36
Western region of state	37
<u>NUMBER OF CHILDREN</u>	
20 or fewer	27
21 to 50	45
51 or more	38
<u>% CHILDREN IN GOVT PROGRAMS</u>	
0%	26
1% to 50%	35
51% or more	42
<u>CHILDREN UNDER AGE ONE</u>	
Serve children under age 1	37
Do not serve children under age 1	27
<u>OWNER EDUCATION</u>	
High school or less	30
Some college	33
College degree	38
<u>OWNER INTERNET ACCESS</u>	
Internet access	35
No Internet access	20



Partnerships have a positive impact of the number of servings of fruits and vegetables child care centers provide. In fact, those with two or more partnerships serve a third of a serving per meal more than those with only one partnership.



Policy Changes

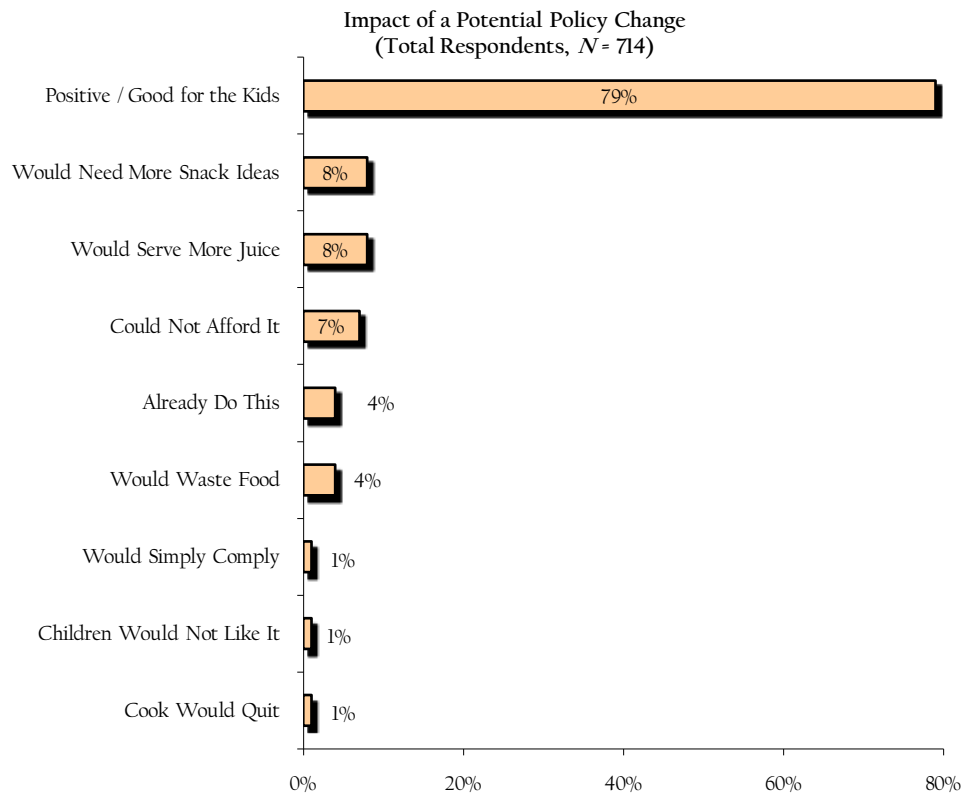
Question 38: What would be your reaction to a change of policy that said that every snack must include at least one fruit or vegetable?

Question 39a How likely is it you would face the following concern?

- A: We would not have enough money for snacks
- B: We would not have enough storage
- C: We do not have the proper facility to serve these types of snacks
- D: Our children would be hungrier
- E: Our cook would need additional training
- F: I would have to take delivery more often from my suppliers
- G: I would have to pay the cook more because it would take them more time
- H: More food would go to waste

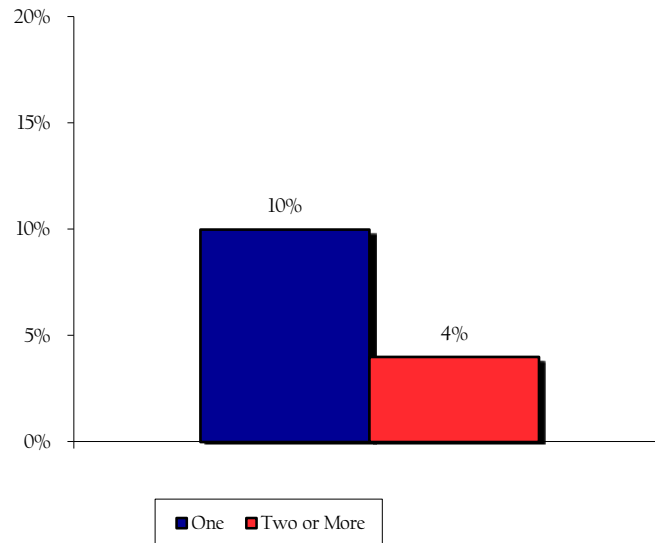
Question 40: If this new policy went into effect, how long would it take you to adjust your snack menu to the change?

The vast majority of respondents said that a policy change requiring every snack to include a fruit or vegetable would be a positive development. Some expressed concern that they would need more training (or new ideas) to serve that many fruits and vegetables, while others would simply serve more juice and others claimed it would not be affordable.

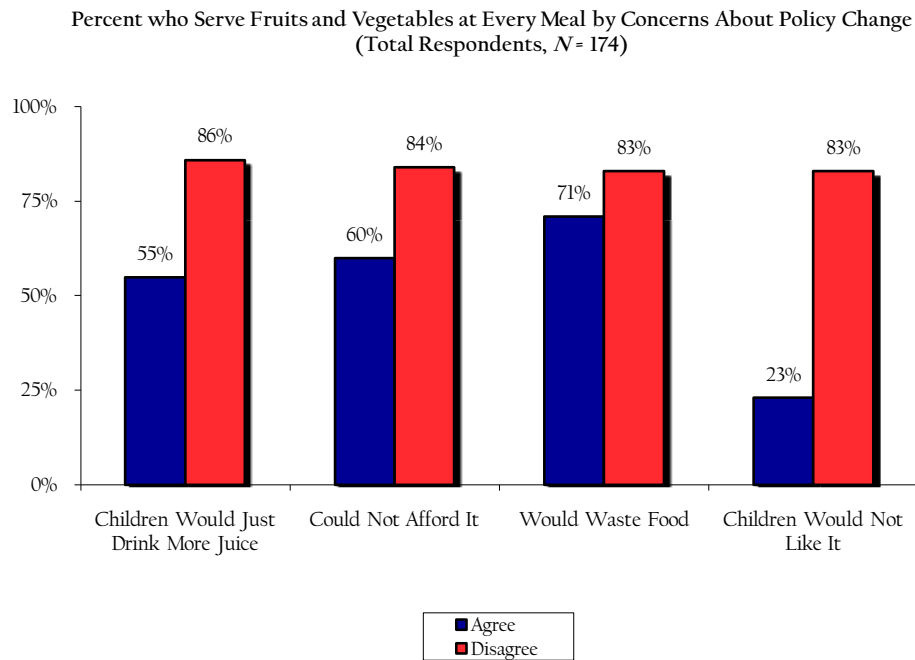


Child care providers with multiple centers are over twice as likely to say they could not afford a required fruit or vegetable serving for all snacks.

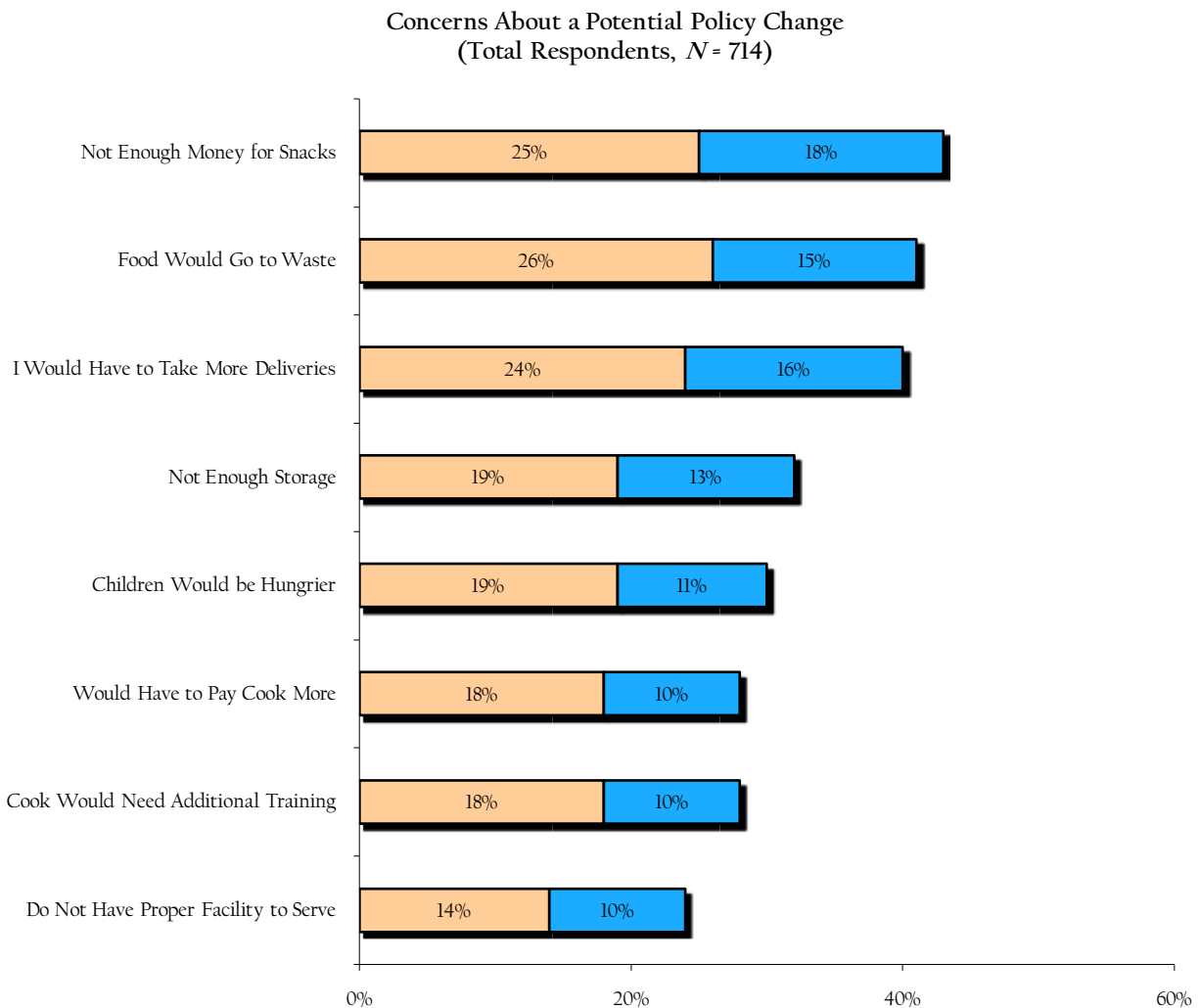
Could Not Afford a Policy Change, by Number of Centers Run
(Total Respondents, *N* = 174)



While it comes as no surprise that respondents who gave negative feedback regarding a requirement to serve a fruit or vegetable at every meal currently serve fewer fruits and vegetables than those who gave positive feedback, what is interesting is the large gap between providers who said their children would not like the requirement, of whom only 23% presently serve a fruit and vegetable during meals, and those who did not say children would not like it, 83% of whom presently serve children fruits and vegetables.

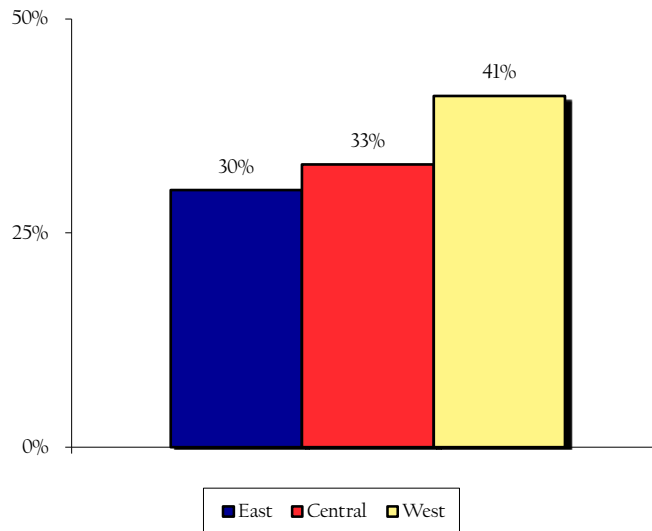


The most significant concern about a policy change requiring that fruits and/or vegetables be served at every snack is affordability, with 43% saying they would not have enough money to pay for their snacks. Nearly as much concern was expressed that some food would go to waste and that more deliveries would be required to keep up with such a policy.

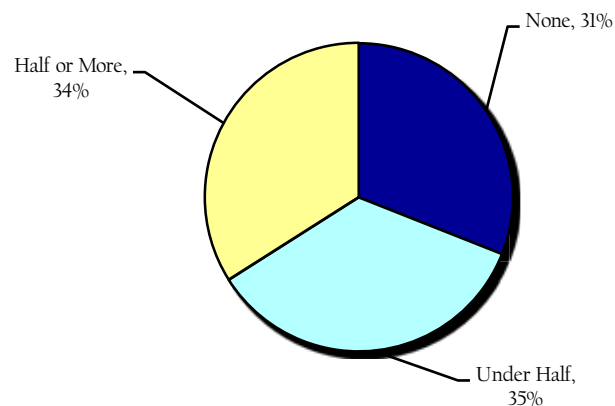


Respondents from centers in the western part of Texas were more likely to voice concerns over a policy change. While about a third of respondents had no concerns about the policy change, another third voiced at least half of all the concerns provided (including many who affirmed all the negative items provided).

Concerns About a Policy Change, by Location of Centers
(Total Respondents, $N = 714$)

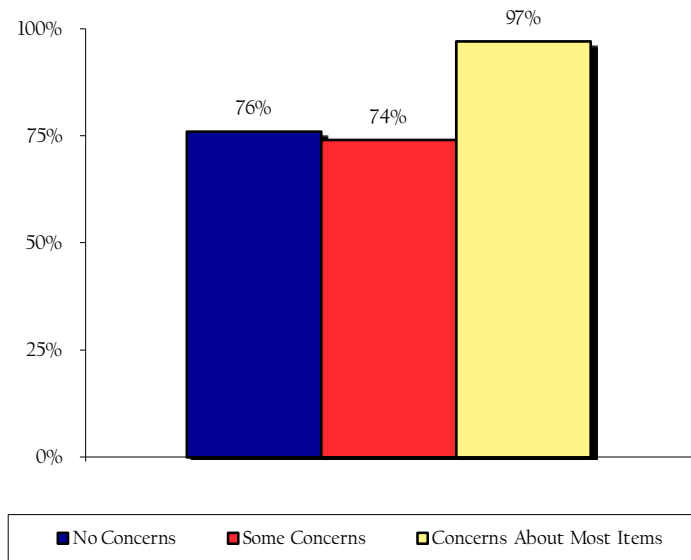


Porportion of Items About the New Policy That
Were Concerns
(Total Respondents, $N = 714$)



Surprisingly, those who voiced the most concerns were also most likely to serve fruits and vegetables in the first place.

Fruit and Vegetable Consumption per Meal, by Number of Concerns About a Policy Change (Total Respondents, $N = 174$)



Parents and Children's Dietary Health Survey Findings

Parents and Children's Dietary Health Survey Findings



PARENTS AND CHILDREN’S DIETARY HEALTH SURVEY FINDINGS

INTRODUCTION

SUMA/Orchard Social Marketing, Inc. (SOSM) conducted a telephone survey with 1,980 parents. The primary objective of this telephone survey was to gauge parents’ awareness of the health benefits of eating the recommended number of servings of fruits and vegetables on a daily basis.

Specifically, the study examined the following topics.

- Knowledge about proper storage and preparation of fruits and vegetables
- Perceptions of the cost of purchasing fresh fruits and vegetables
- Cultural norms and practices regarding preparing and serving fruits and vegetables
- Barriers to purchasing and/or preparing fruits and vegetables
- Preferred ways of learning about food preparation
- Ways of teaching children the importance of fruits and vegetables
- Best methods for distributing information about fruits and vegetables
- Awareness of appropriate numbers of servings of fruits and vegetables to babies, toddlers, and young children
- Barriers to providing healthy snacks to young children
- Perceptions about purchasing and consuming local produce
- Knowledge of community resources that increase access to fresh fruits and vegetables
- Awareness of and barriers to other obesity-prevention factors, including eating whole grains, limiting sweetened beverages, and being physically active



Consumption: Fruits and Vegetables

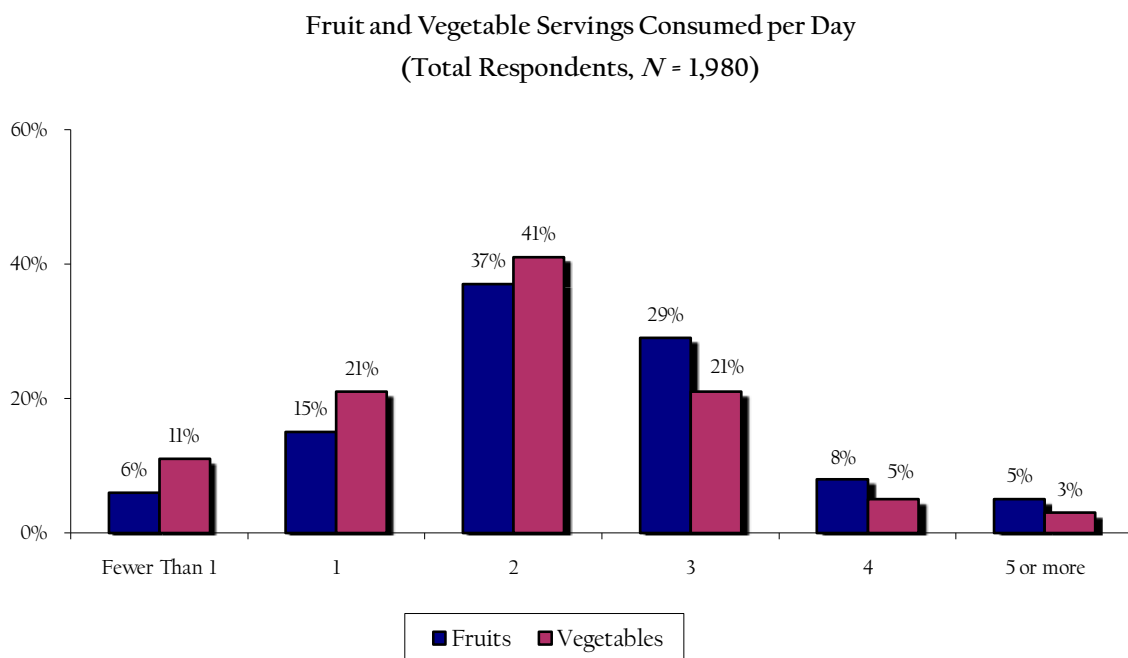
The most overarching question in the present report is to what degree families consume fruits and vegetables. The study measured not just how many servings of fruits and vegetables children under the age of 10 eat per day, but also whether they eat two or more kinds of fruits and vegetables per day and whether fruits and vegetables are part of each snack and meal.

Daily Fruit and Vegetable Consumption

Question 16b: How many servings of fruit does he/she eat per day?

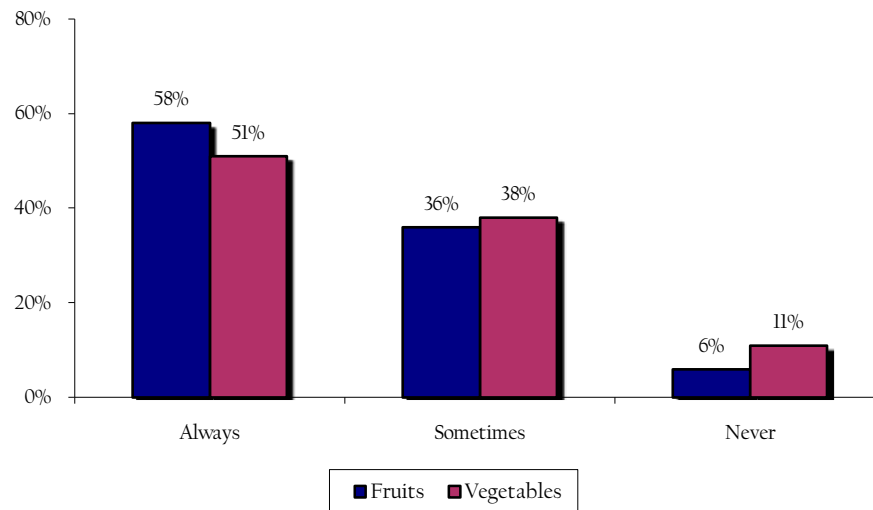
Question 16d: How many servings of vegetables does he/she eat per day?

On average, parents report that their children under the age of 10 eat 2.5 servings of fruits per day and 2.2 servings of vegetables per day. The median answer for both fruit and vegetable servings was two. While only 6% of parents said that their children eat fewer than one serving of fruits, just over one in ten reported that their children eat fewer than one serving of vegetables per day.



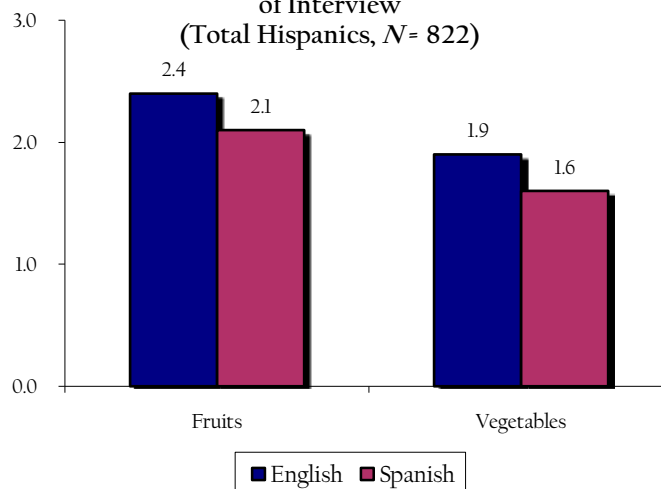
Over half of the parents reported that their children eat more than one type of fruit *and* more than one type of vegetable per day. This would mean that the vast majority of those who said their children eat two or more servings per day eat different types of fruits and vegetables in each daily serving.

More Than One Type of Fruit/Vegetable Consumed Per Day
(Total Respondents, $N = 1,980$)

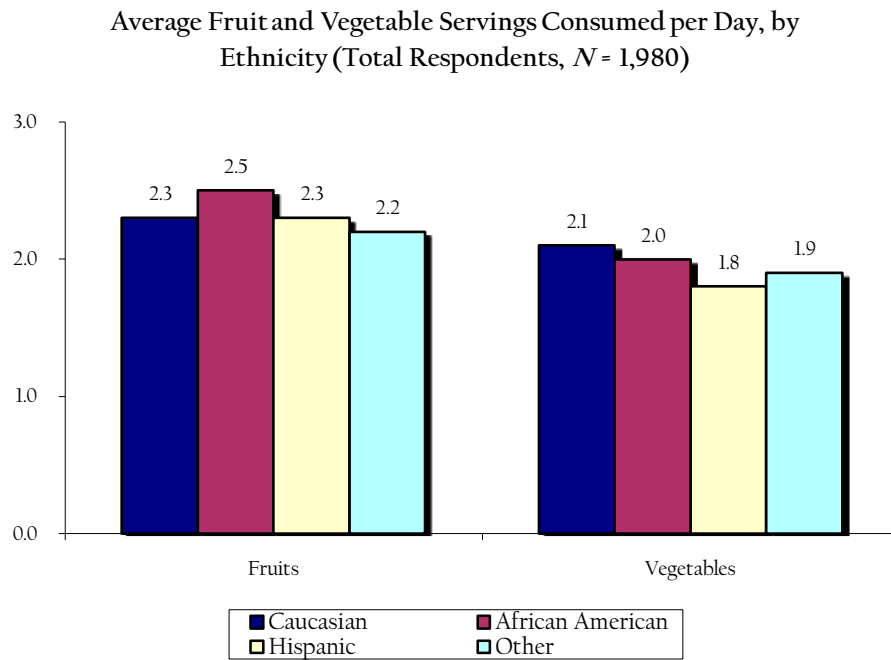


Among Hispanics, those who completed the interview in Spanish reported significantly fewer servings of both fruits and vegetables per day.

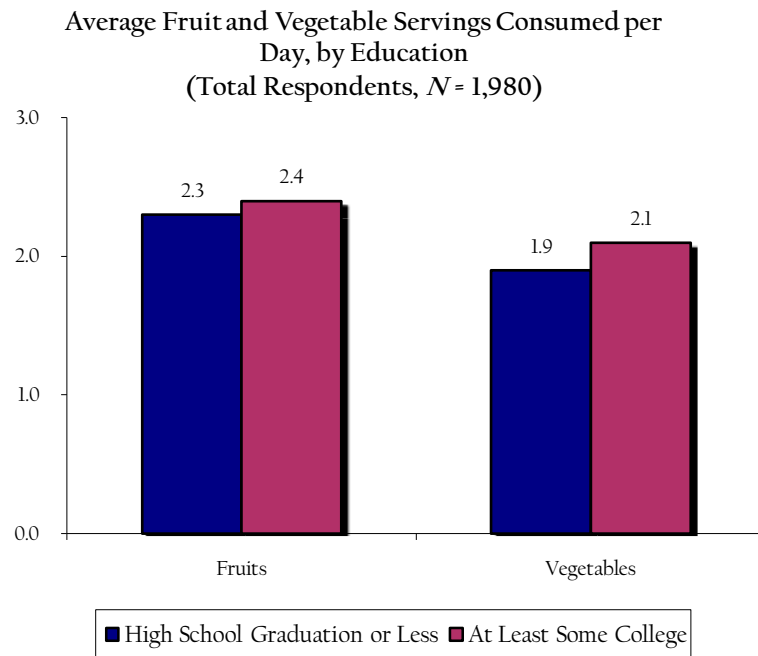
Average Fruit and Vegetable Servings Consumed per Day by Hispanics, by Language of Interview
(Total Hispanics, $N = 822$)



Overall, African Americans reported the highest consumption of fruits, while Caucasians reported the highest consumption of vegetables. Hispanics fall behind both African Americans and Caucasians in both fruit and vegetable consumption.



Another significant difference is by education. Specifically, persons with at least some college education reported slightly higher consumption of vegetables and fruits, although the difference was insignificant for fruits.



Fruit and Vegetable Variety

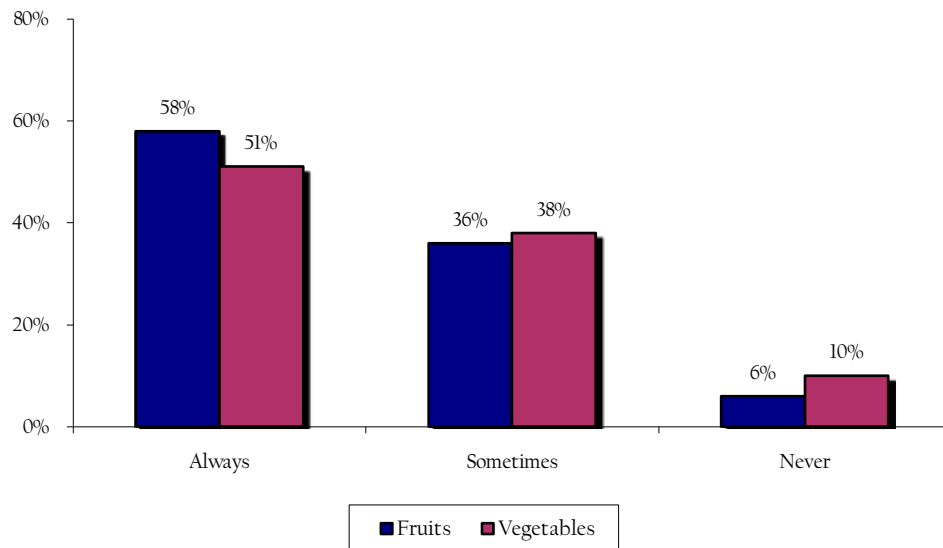
In comparison with the measure of servings of both fruits and vegetables, far more substantial differences were found for variety—that is, the consumption of two different types of fruits and two different types of vegetables per day.

Question 16a: Does he/she eat more than one kind of fruit per day?

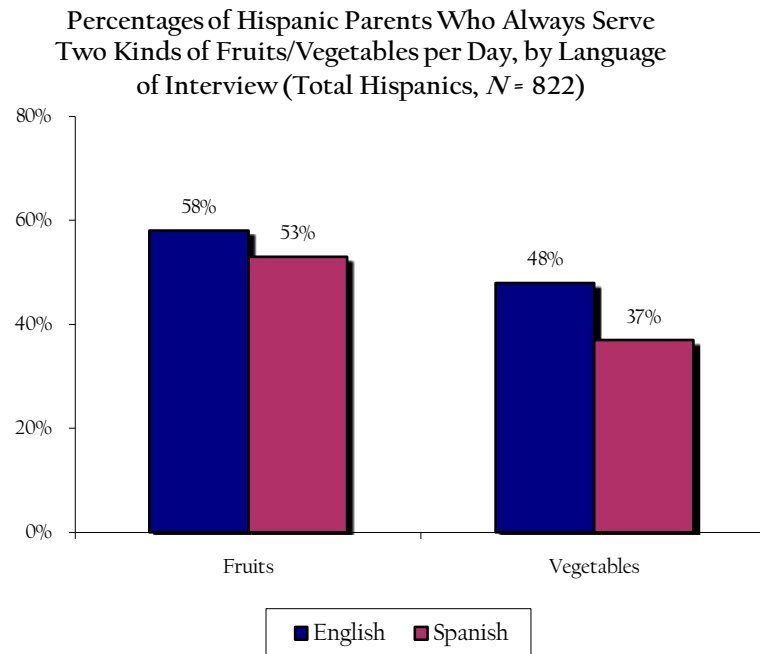
Question 16c: Does he/she eat more than one kind of vegetable per day?

Over half of the children reportedly eat more than one kind of fruit and one kind of vegetable on a daily basis.

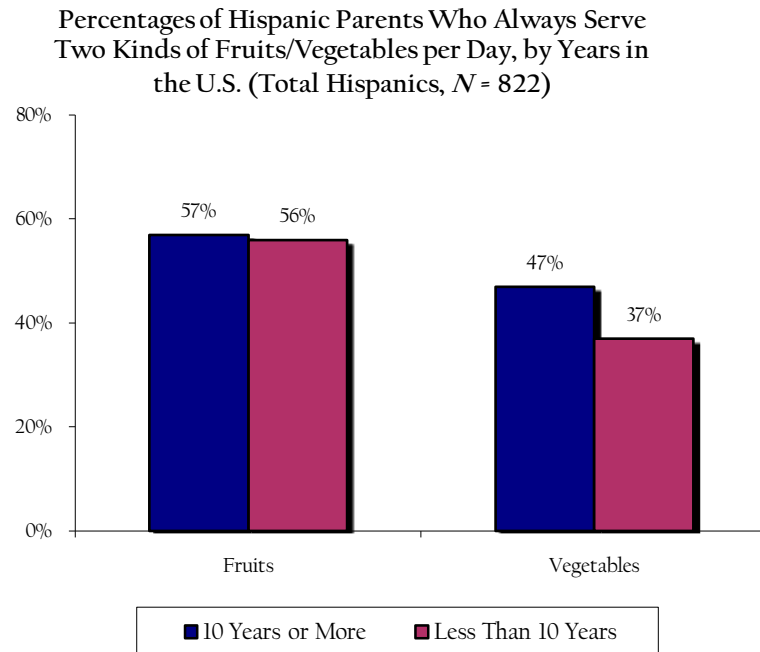
Frequency of Children's Consumption of More Than One Type of Fruit/Vegetable per Day (Total Respondents, $N=1,980$)



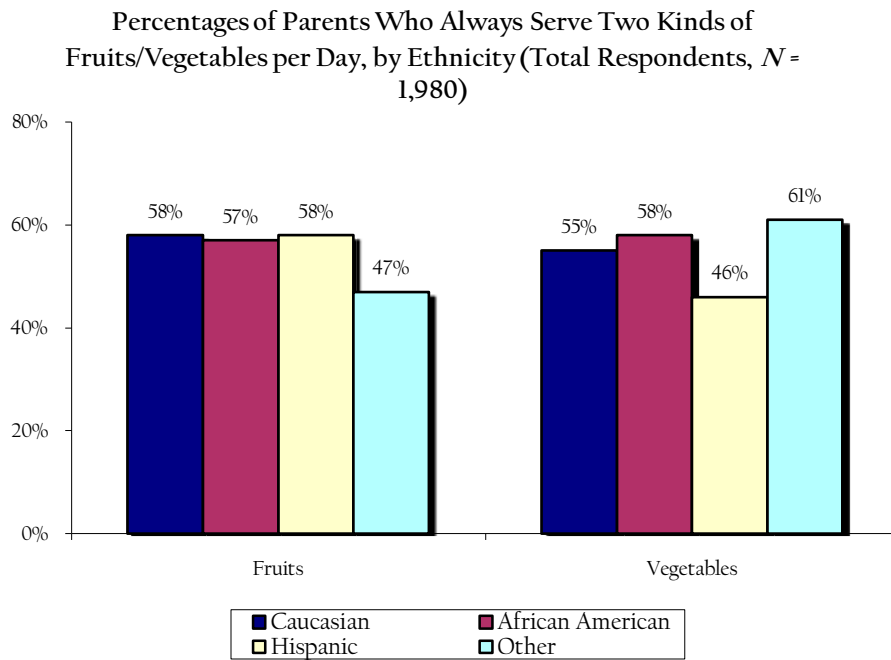
Hispanics who chose to be interviewed in English were much more likely than those who chose Spanish interviews to report the provision of two types of fruits per day, and the difference within this population is even more substantial for vegetables. While nearly half of the English-interview Hispanics have at least two types of vegetables per day, only one third of the Spanish-interview Hispanics reported the same level of variety.



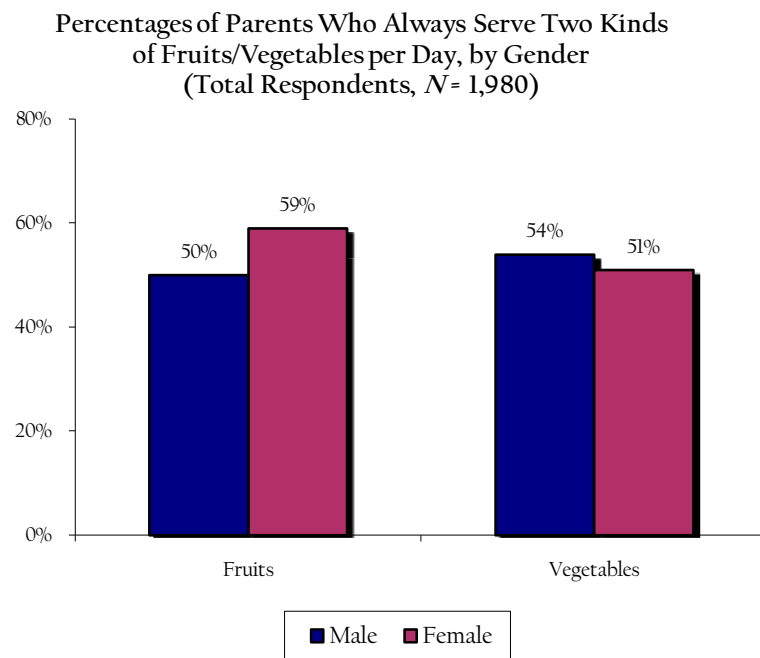
Therefore, it should come as no surprise that Hispanics who have lived in the U.S. for less than 10 years (and who therefore are less likely to speak English) are also far less likely to consume two types of vegetables per day, although in this respect there was no difference with regard to fruits.



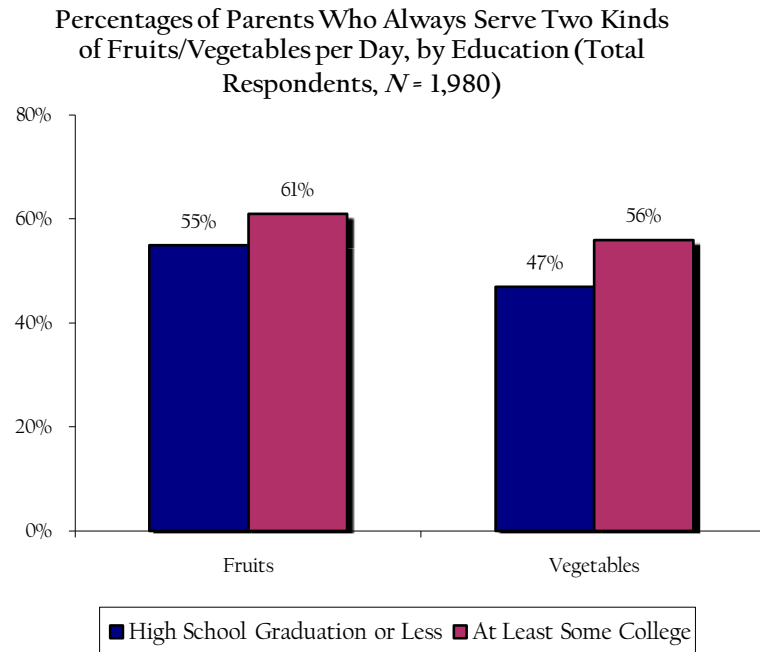
Across race and ethnicity, the data show no significant difference for fruit variety. However, Hispanics lag significantly behind all other ethnicities in vegetable variety, on average by some ten percentage points.



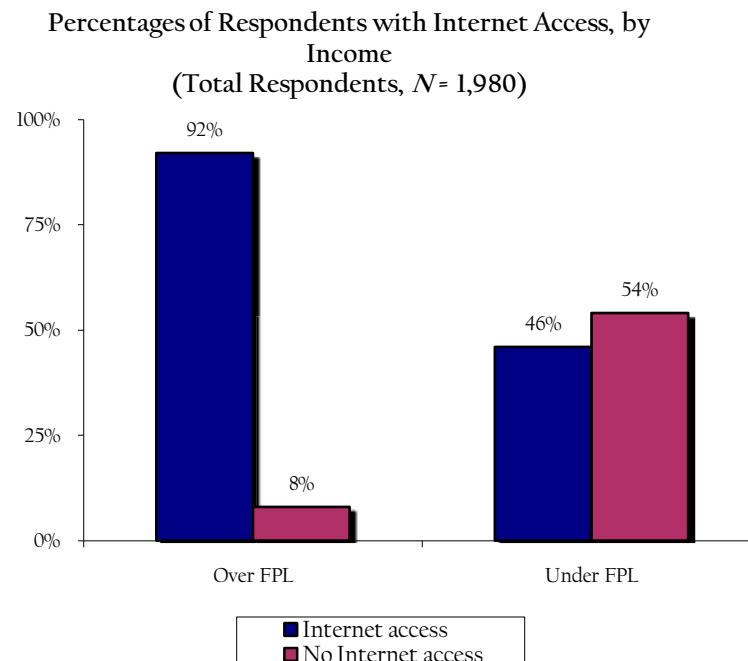
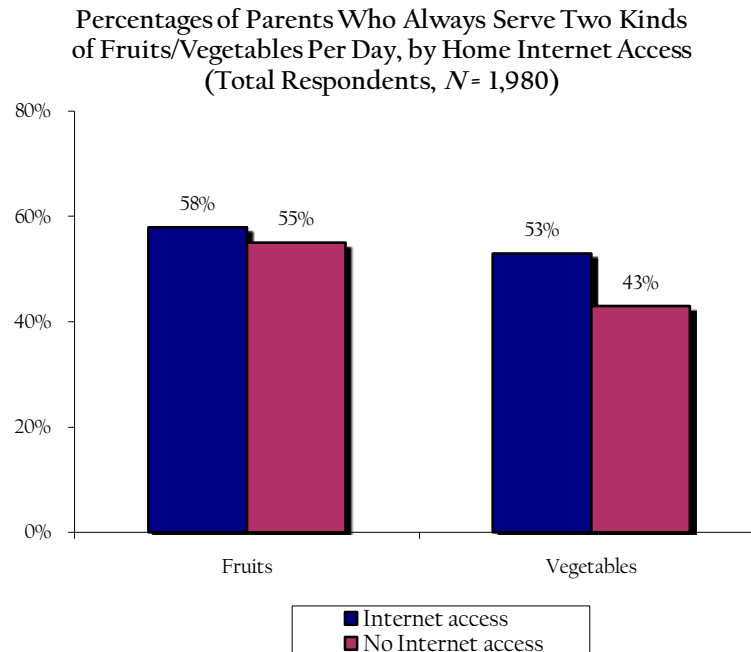
There was also a surprising difference by gender, with males reporting less fruit variety than females. The opposite was true for vegetables, although the difference there was modest at best.



As was the case for overall servings of fruits and vegetables, those with higher educational attainment also have greater variety of fruits and vegetables, since those with at least some college education scored nearly 10% higher on serving two different vegetables per day than did those with only a high school education or less.



Home Internet access is a very good index of socioeconomic status (see chart below), since generally those with above-average income have access while those with below-average income are much less likely to have access. Like individuals with higher education, those with home Internet access are 10% more likely than those without to get two types of vegetables per day.



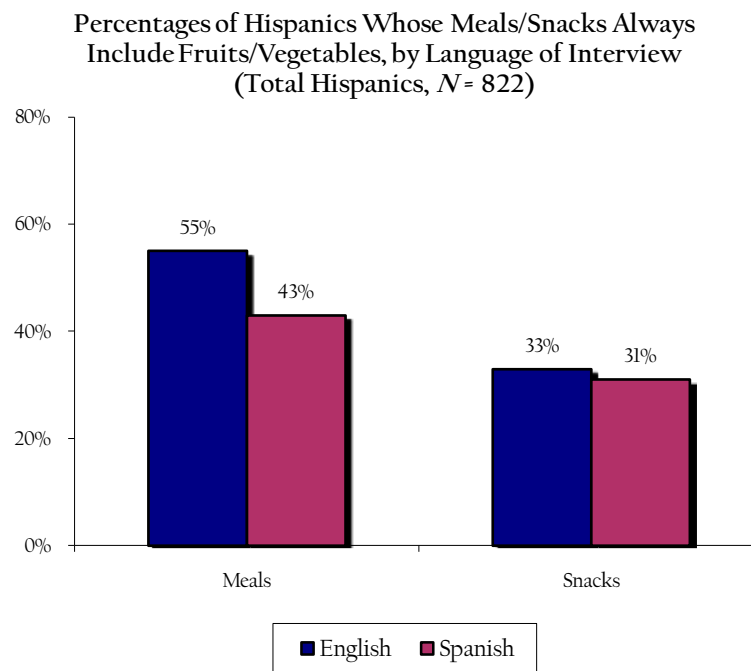
Fruit and Vegetable Consumption per Meal or Snack

A final group of measures on fruits and vegetables is concerned with whether fruits and vegetables are part of each meal and each snack. Overall, parents report that fruits and vegetables are part of about every other meal and one of three snacks.

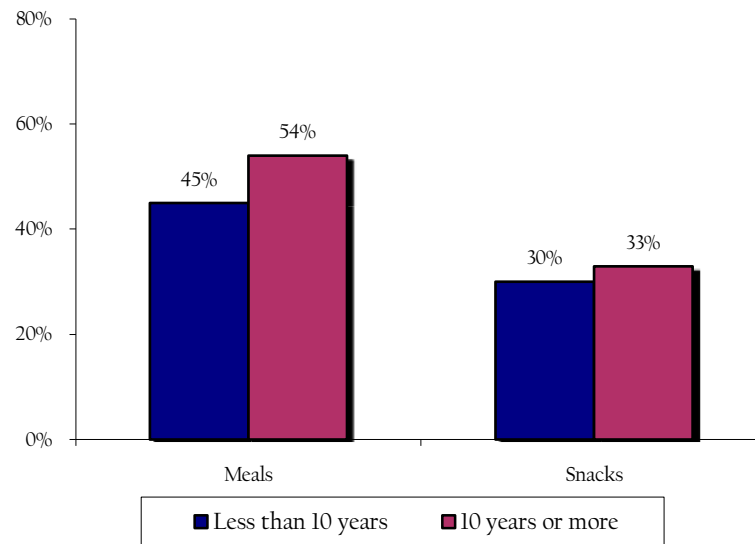
Question 17a: When you prepare meals for your child, would you say that fruits and vegetables are always part of the meal?

Question 17b: When you prepare snacks for your child, would you say that fruits and vegetables are always part of the snack?

As was noted in the findings on overall servings and variety of fruits and vegetables, Hispanics who were interviewed in Spanish reported lower consumption of fruits and vegetables than Hispanics who opted for an English interview, although the difference within snacks is statistically insignificant. However, for meals, Hispanics interviewed in Spanish reported providing fruits and vegetables at a rate 12 percentage points lower than Hispanics interviewed in English. As was expected, the same pattern emerged for Hispanics who have lived in the U.S. for less than 10 years in comparison with those who have been here for 10 years or more.

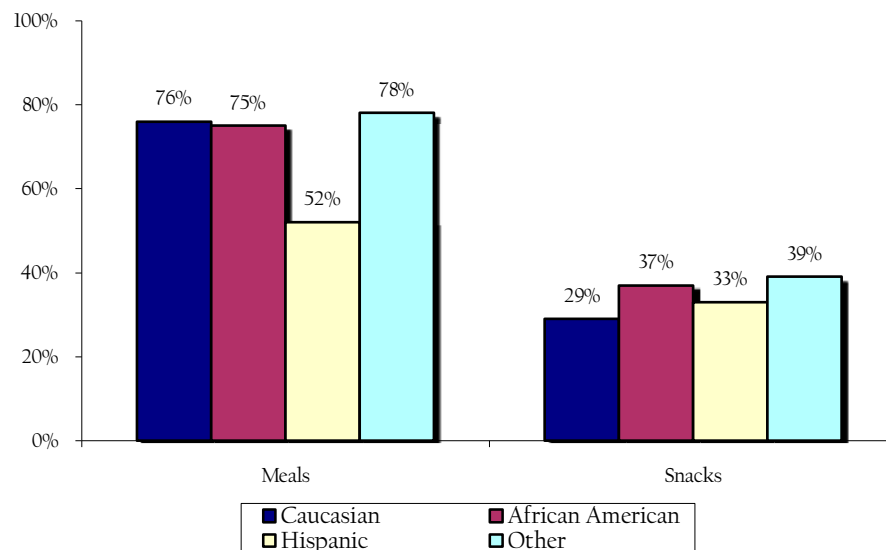


Percentages of Hispanics Whose Meals/Snacks Always Include Fruits/Vegetables, by Years in the U.S. (Total Hispanics, $N = 822$)



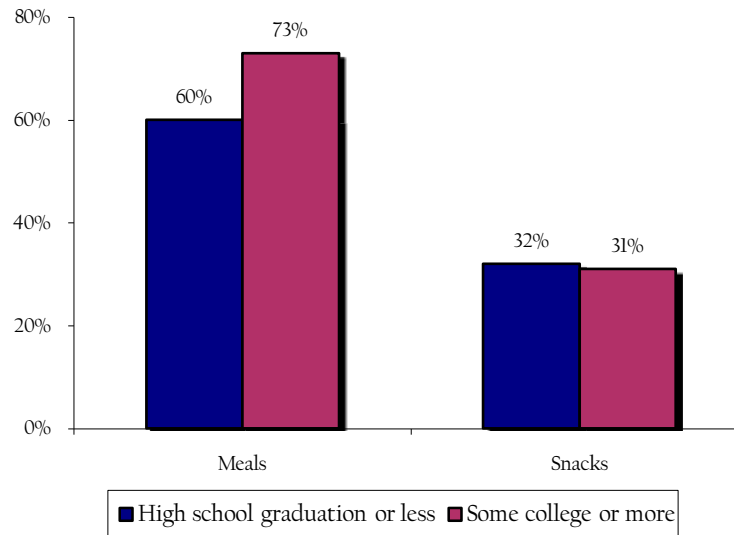
By ethnicity, the data shows a substantial gap between Hispanics and all others with regard to providing fruits and vegetables at every meal. While Caucasians and African Americans provide fruits and vegetables in three out of four meals, Hispanics do so only every other meal. With regard to snacks, Caucasians actually trail African Americans and Hispanics.

Percentages of Respondents Whose Meals/Snacks Always Include Fruits/Vegetables, by Ethnicity (Total Respondents, $N = 1,980$)

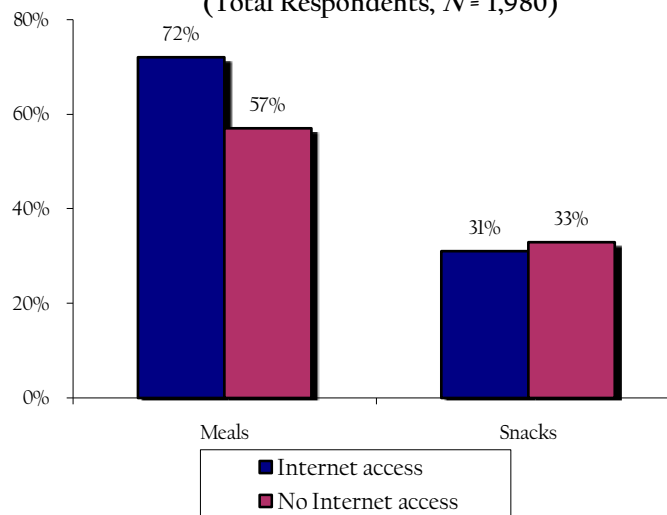


Continuing the trend of an education-related gap, those with some college education were far more likely than those with no college education to say they serve a fruit or vegetable at every meal, although there was no significant difference in servings of fruits and vegetables during snacks. The effect appears not to be confined to education but to extend to overall socioeconomic status, since the rate of those with Internet access who serve a fruit or vegetable at every meal is 15 percentage points higher than the rate of those without Internet access.

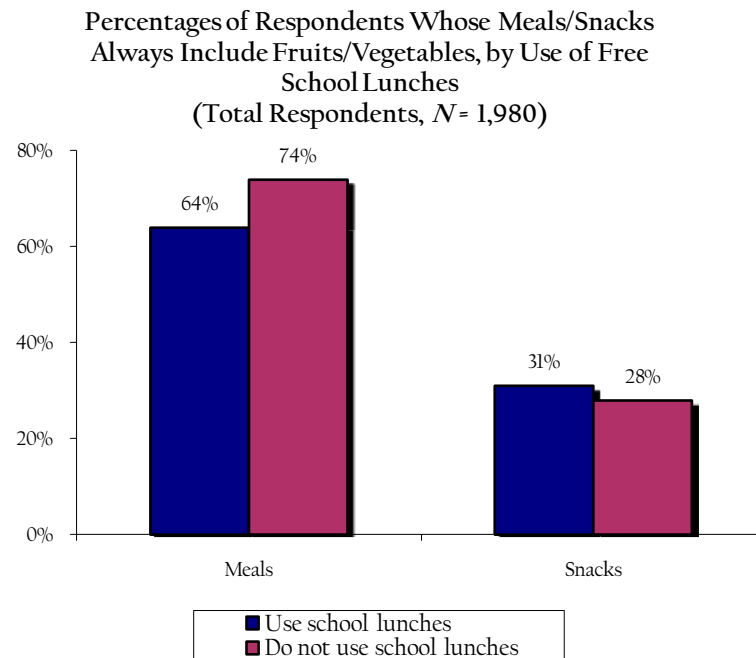
Percentages of Respondents Whose Meals/Snacks Always Include Fruits/Vegetables, by Education
(Total Respondents, $N = 1,980$)



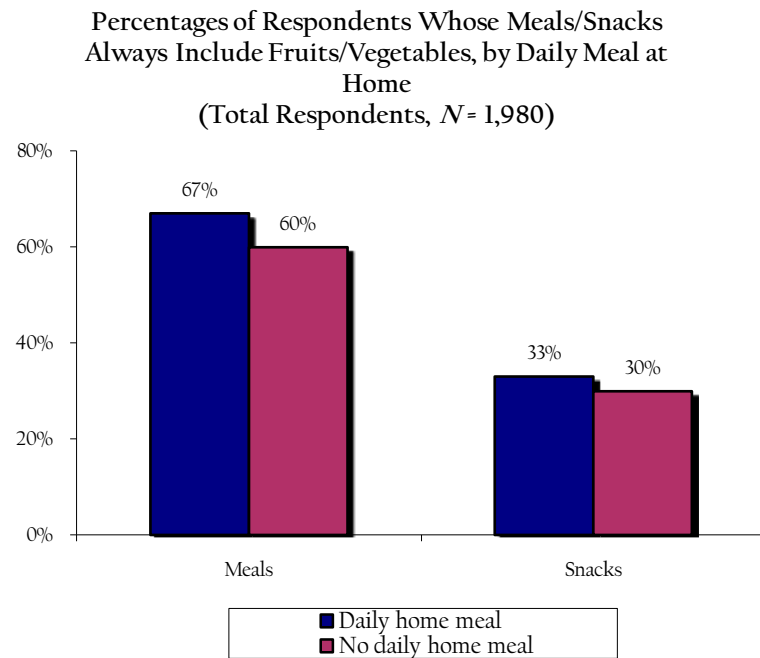
Percentages of Respondents Whose Meals/Snacks Always Include Fruits/Vegetables, by Home Internet Access
(Total Respondents, $N = 1,980$)



Those who get free school lunches are less likely than others to get a fruit or vegetable with every meal, again reflecting a difference corresponding to socioeconomic status.

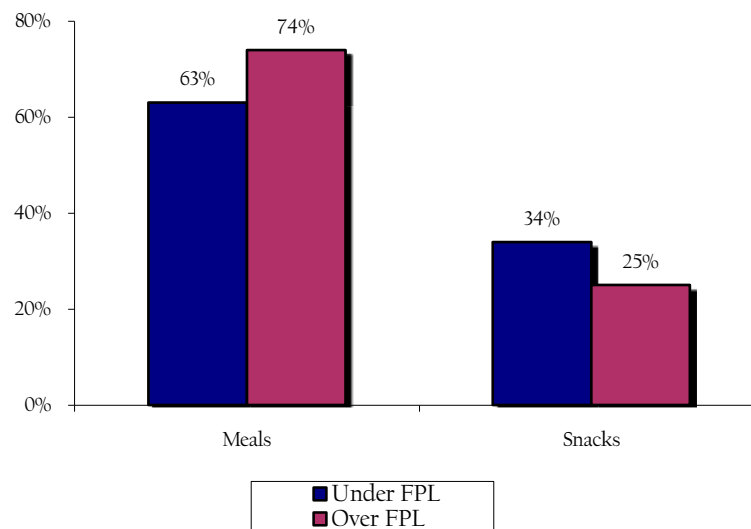


Frequency of daily sit-down meals at home is linked to serving fruits and vegetables at every meal and snack, as well as other measures of healthy eating explored in this report. The impact is modest, but significant nonetheless.



As the obvious final measure of socioeconomic status, income is linked to numbers of fruits and vegetables served during meals and snacks, although, interestingly, those under the FPL reported a higher incidence (of nearly 10 percentage points) of providing fruits and vegetables during snacks. Conversely, however, their likelihood of serving fruits and vegetables during meals is more than 10 percentage points lower than those above the poverty level.

Percentages of Respondents Whose Meals/Snacks Always Include Fruits/Vegetables, by Income (Total Respondents, $N = 1,980$)



Consumption: Breads and Drinks

Beyond the number of servings of fruits and vegetables per day is the question of whether parents are serving 100% fruit juice, as opposed to soft drinks and other processed drinks.

Juice, Milk, and Other Drinks

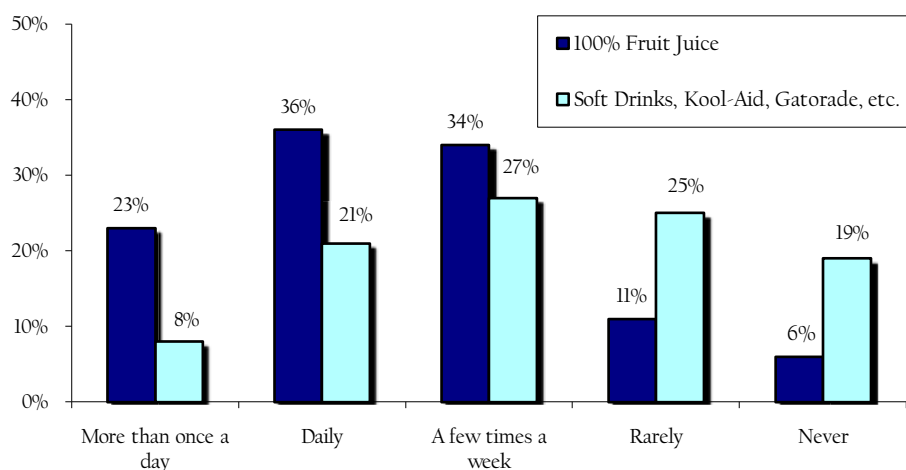
Question 18a: Again, thinking of your oldest child age 10 or younger, how often does he/she drink 100% fruit juice?

Question 18b: Again, still thinking of your oldest child age 10 or younger, what kind of milk does he/she usually drink?

Question 18c: How often does he/she drink soft drinks, KoolAid, Gatorade, Sunny Delight, or other fruit drinks or punches?

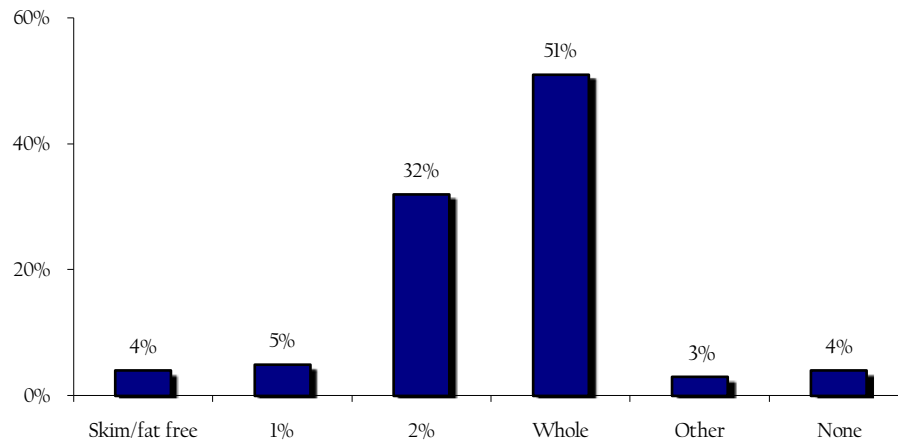
Most parents reported that their children under the age of 10 drink 100% fruit juice once per day, while they reported providing their kids soft drinks, Kool-Aid, Gatorade, and similar types of drinks a few times per week. One of four reported “never” serving their children soft drinks/Kool-Aid/Gatorade, etc. While one of four parents reported providing fruit juice more than once per day, the same is true with regard to soft drinks and other drinks for fewer than one of ten parents.

Frequency of Drinking Juice and Other Drinks
(Total Respondents, $N = 1,980$)



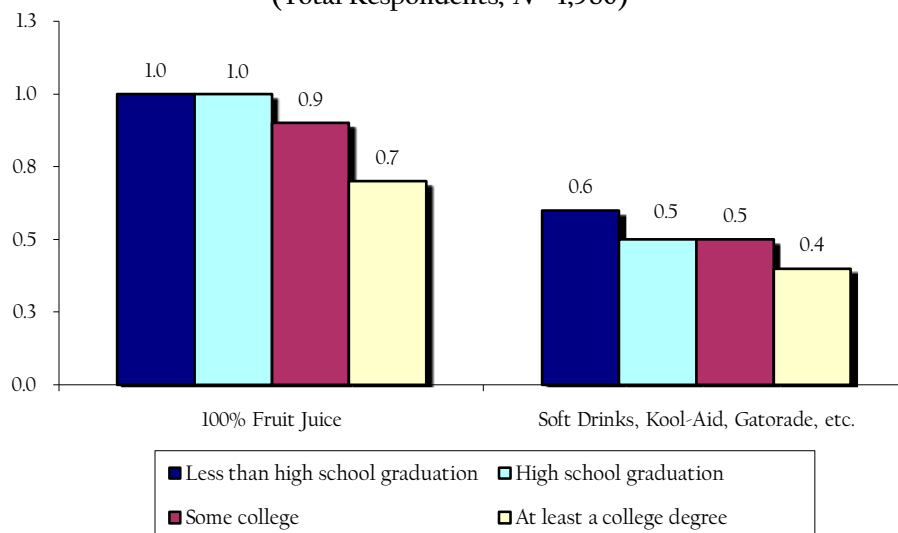
Over half of all respondents said their children under the age of 10 drink whole milk more than any other type of milk. The next most frequently used type of milk is 2% fat milk.

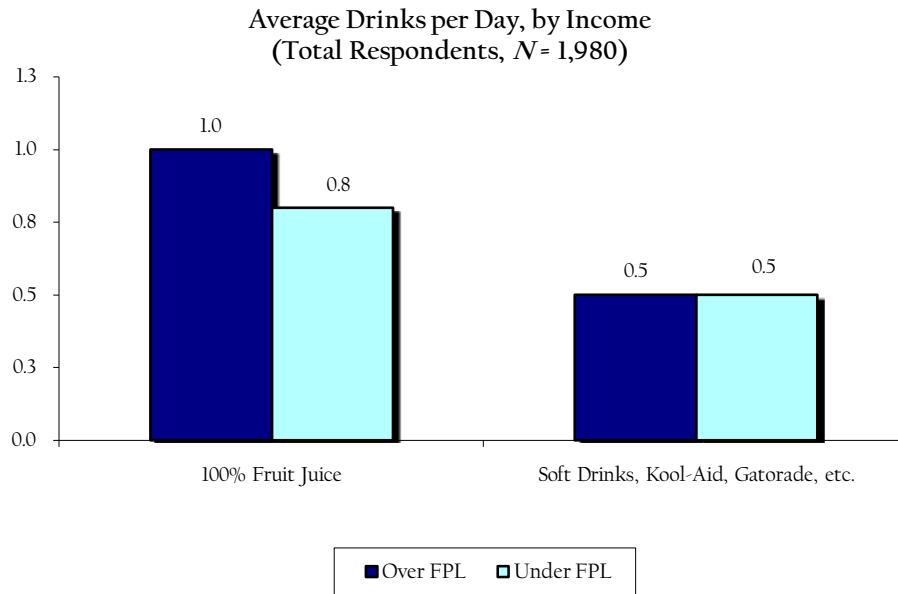
Type of Milk Usually Drunk
(Total Respondents, $N = 1,980$)



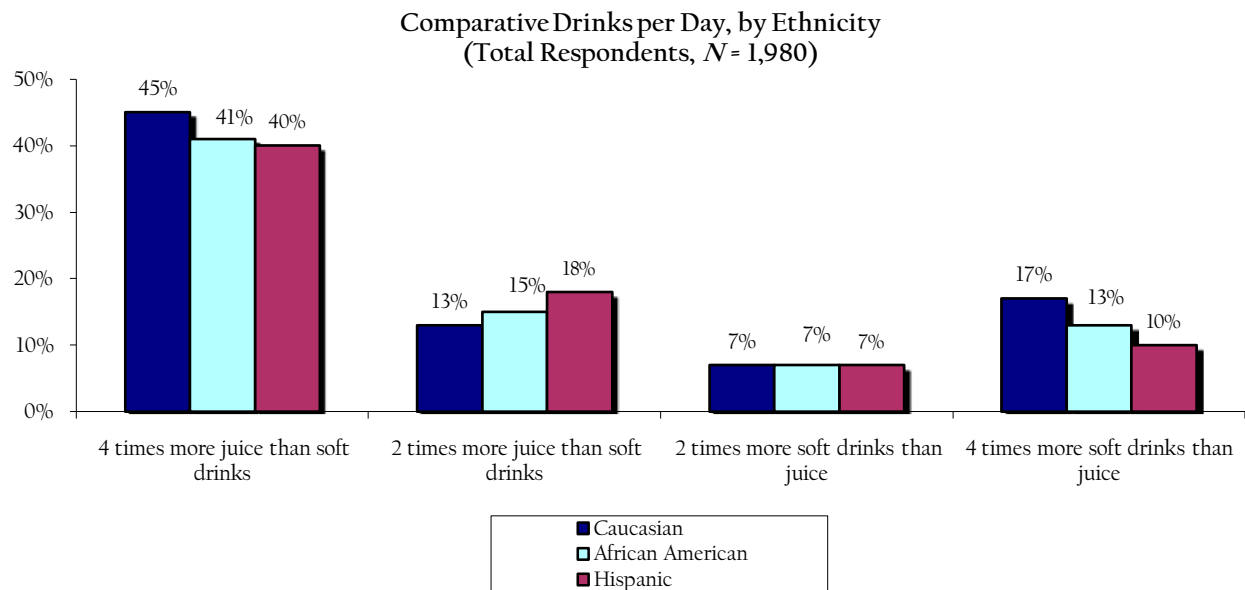
Interestingly, those with less educational attainment reported much higher frequencies of drinking both 100% fruit juice and drinks such as soft drinks and Kool-Aid. Respondents under the FPL were also more likely to report providing fruit juice than were those above the poverty level.

Average Drinks per Day, by Education
(Total Respondents, $N = 1,980$)



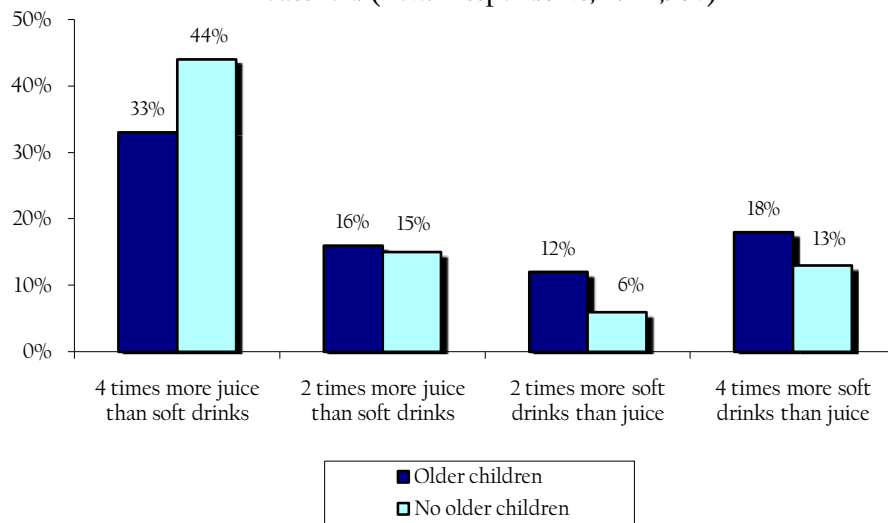


As part of the investigation into consumption of juice and soft drinks, a combination score was developed to comparatively explore consumption of both beverages. Using this measure, 17% of Caucasians were found to serve their children four times more soft drinks and similar drinks than juice, in comparison with Hispanics, only 10% of whom serve soft drinks four times more than juice.

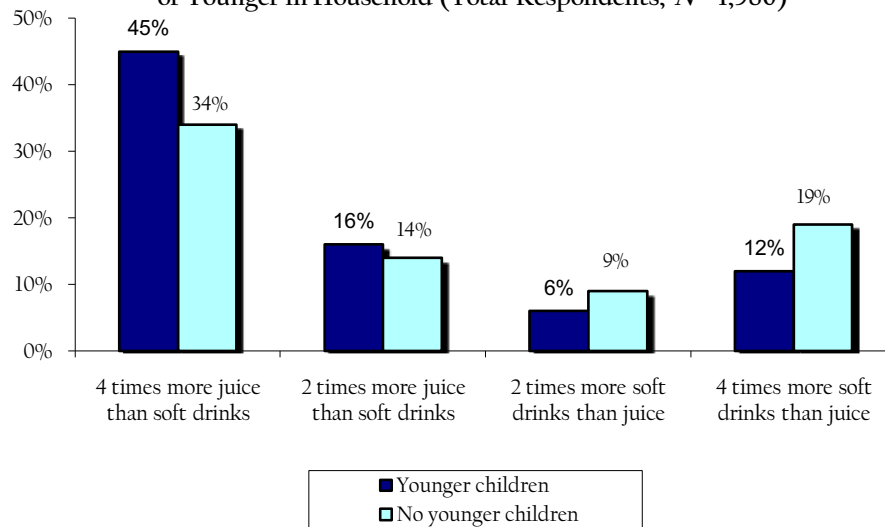


As might be expected, 28% of households with children over the age of 10 serve more soft drinks than juice to their children under the age of 10, in comparison with households without children over the age of 10, with only 19% serving more soft drinks than juice. Conversely, 61% of those who have children under the age of three serve more juice than soft drinks, in comparison with those without children under three, 48% of whom serve more juice than soft drinks.

Comparative Drinks per Day, by Presence of Older (11+) Children in Household (Total Respondents, $N = 1,980$)

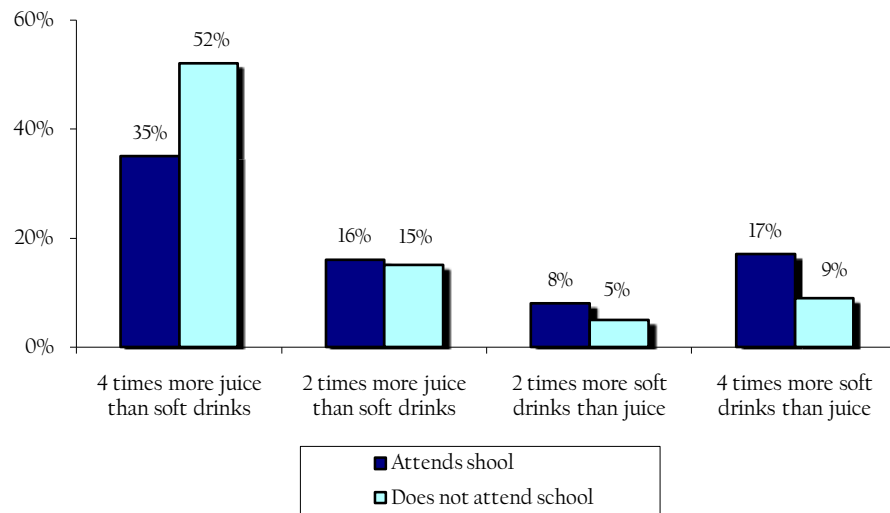


Comparative Drinks per Day, by Presence of Children 3 Years Old or Younger in Household (Total Respondents, $N = 1,980$)



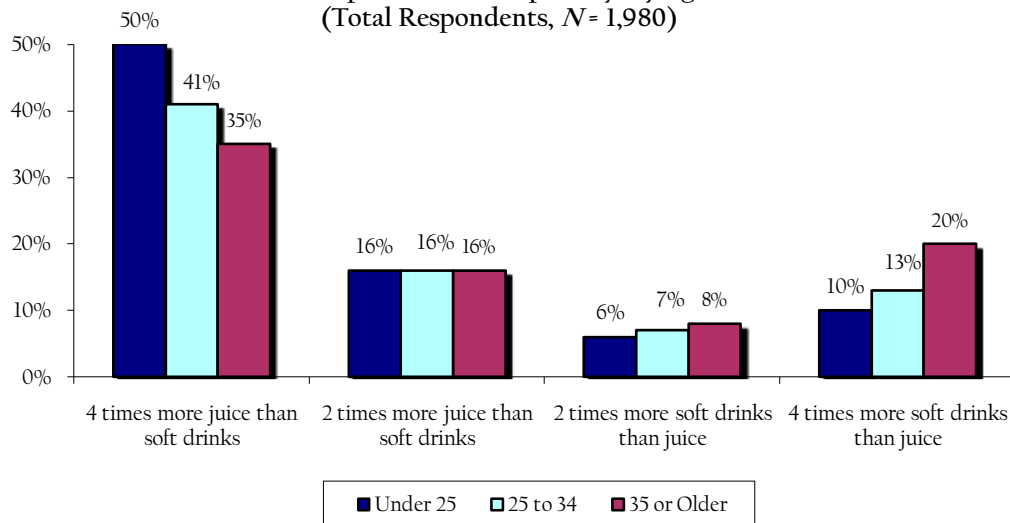
Using a similar measure, parents whose children over the age of 10 attend school reported much lower levels of serving more juice than soft drinks. In fact, two thirds of those whose children do not attend school serve more juice than soft drinks, in comparison with those whose children under age 10 are in school, only about half of whom serve more juice than soft drinks.

Comparative Drinks per Day, by Whether Child Attends School (Total Respondents, $N = 1,980$)

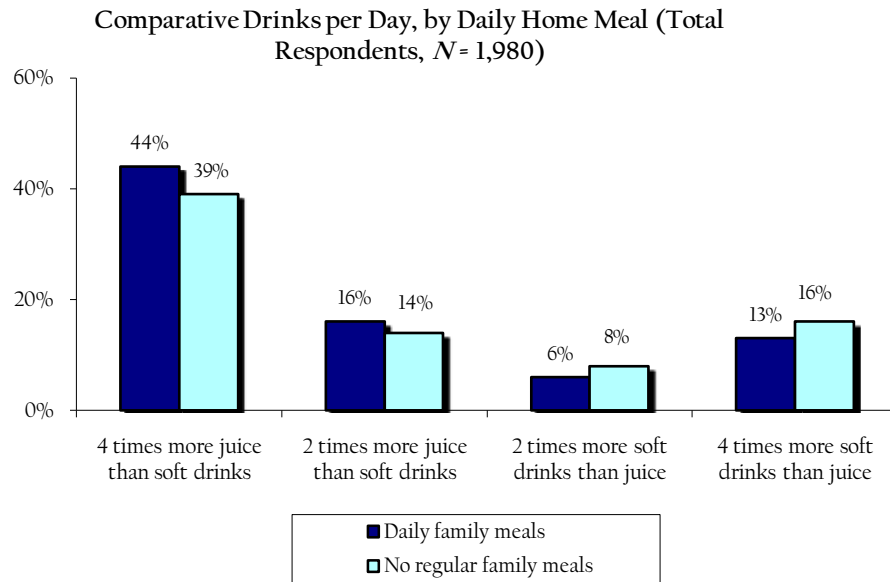


Seen in another way, young parents (who are far more likely to have younger children) are substantially more likely to serve more juice than soft drinks than are older parents.

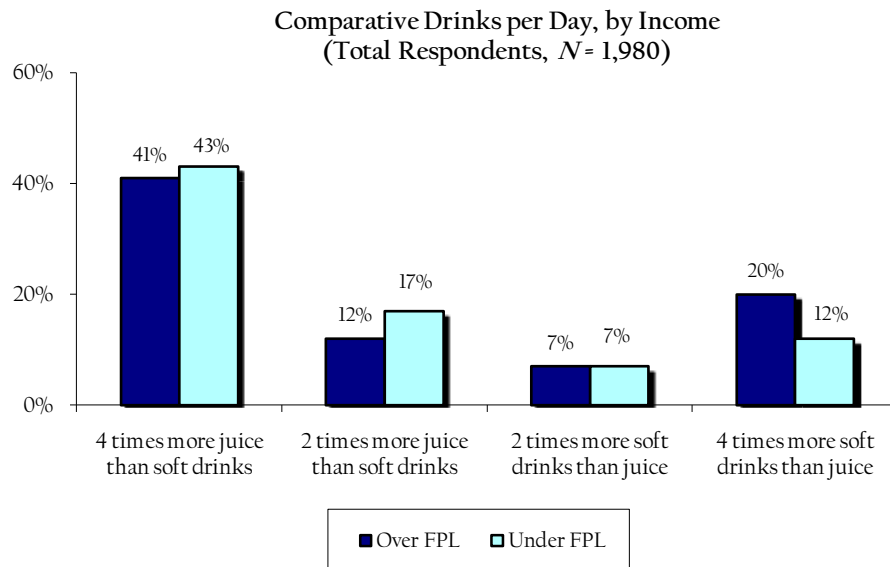
Comparative Drinks per Day, by Age (Total Respondents, $N = 1,980$)



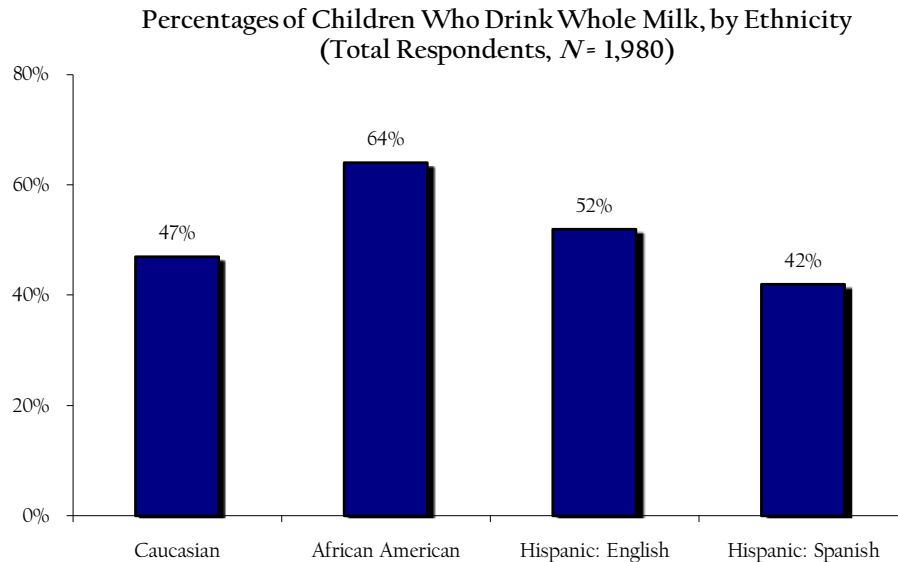
Parents who have daily sit-down meals with their families are less likely to serve more soft drinks than juice than are parents who do not have sit-down family meals. While 60% of sit-down families serve more juice than soft drinks, only 53% of parents who do not have sit-down meals serve more juice than soft drinks.



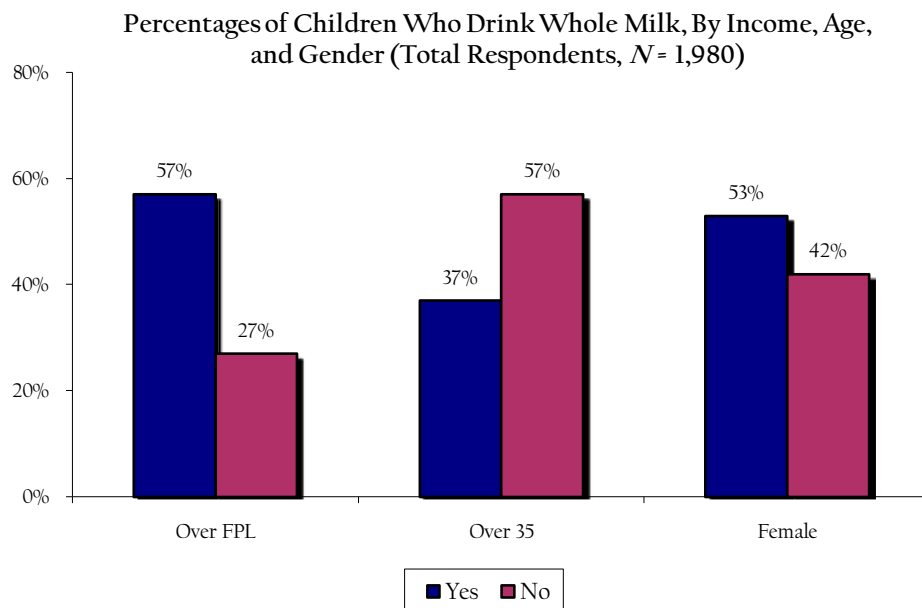
Finally, a larger percentage of parents under the FPL reported serving more juice than soft drinks (60%) than did those over the FPL (53%).



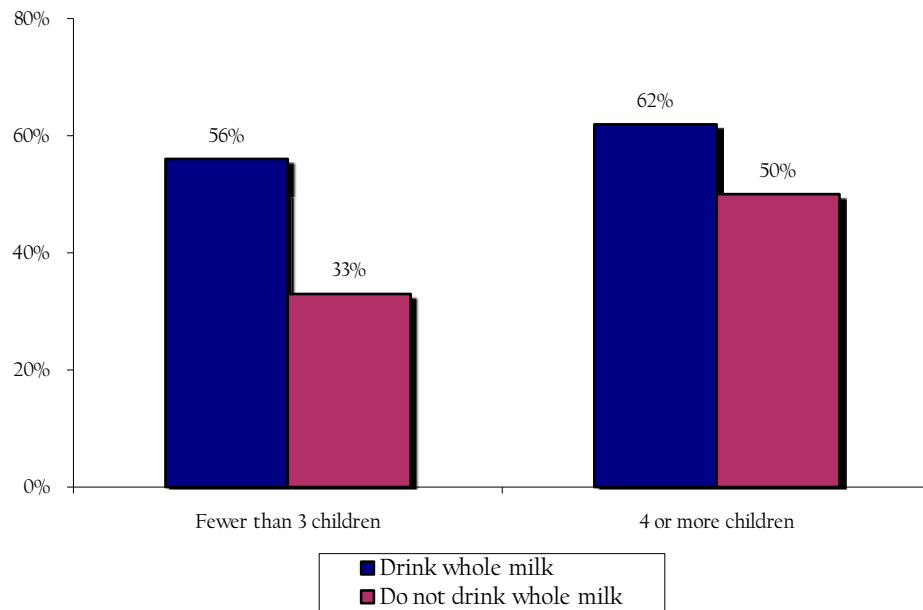
Given the concern that whole milk is overused as a source of calories from fat, we explored the likelihood of whole milk consumption. Whole milk is consumed more often by African American children and Hispanic children whose parents were interviewed in English than by Caucasian children and Hispanic children whose parents were interviewed in Spanish.



Also, there are differences in whole milk consumption across parental age, income, and gender.



Percentages of Children Who Drink Whole Milk, by Number of Children in Family (Total Respondents, $N = 1,980$)



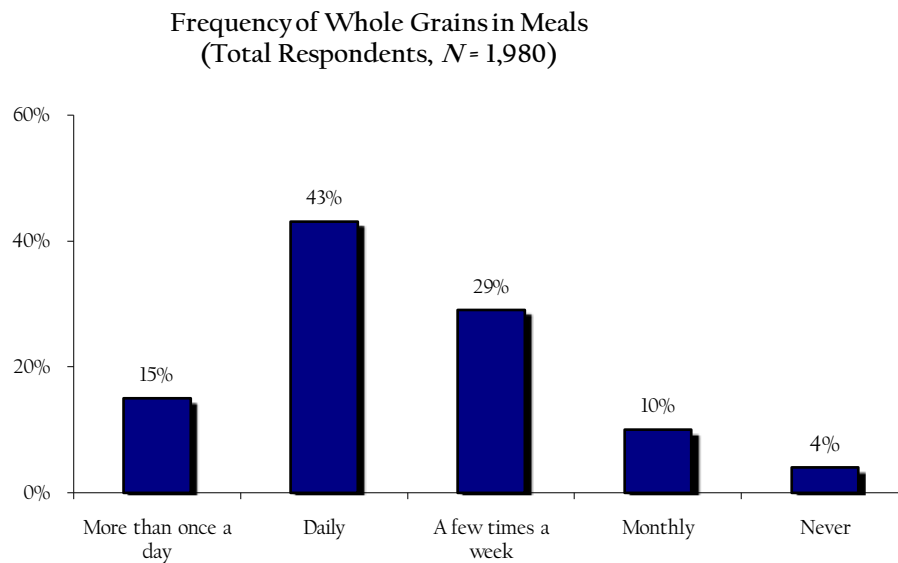
Grain Provision and Consumption

The final area of children's food consumption that was explored was the provision of whole grains and bread types.

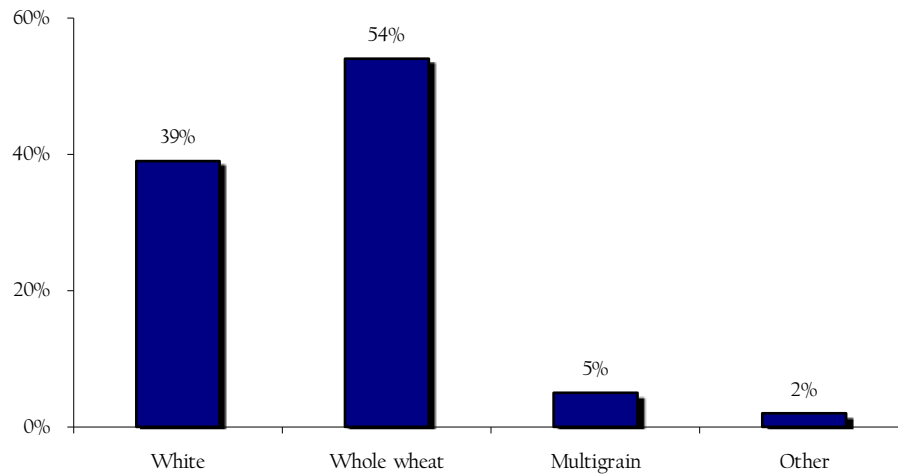
Question 20a: How often are whole-grain products, such as oatmeal, brown rice, 100% whole wheat bread, 100% whole-wheat tortillas, or corn tortillas, included in your meals?

Question 20b: What kind of bread do you usually purchase?

The majority of parents reported providing whole grains at least once a day. A majority also reported that the bread they provide is whole wheat.

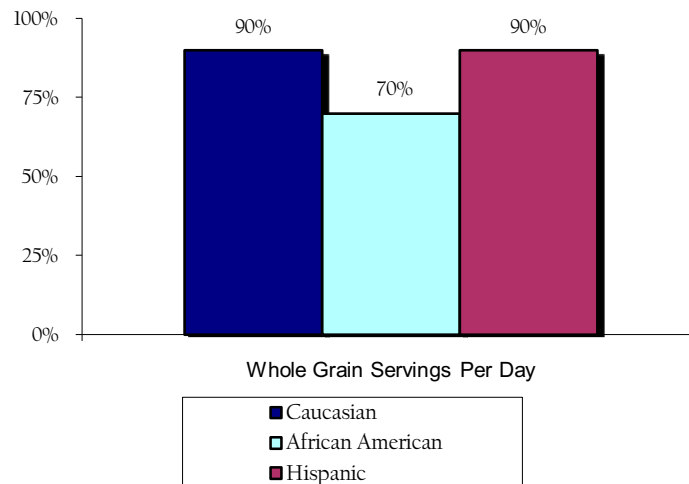


Types of Bread Purchased
(Total Respondents, $N = 1,980$)



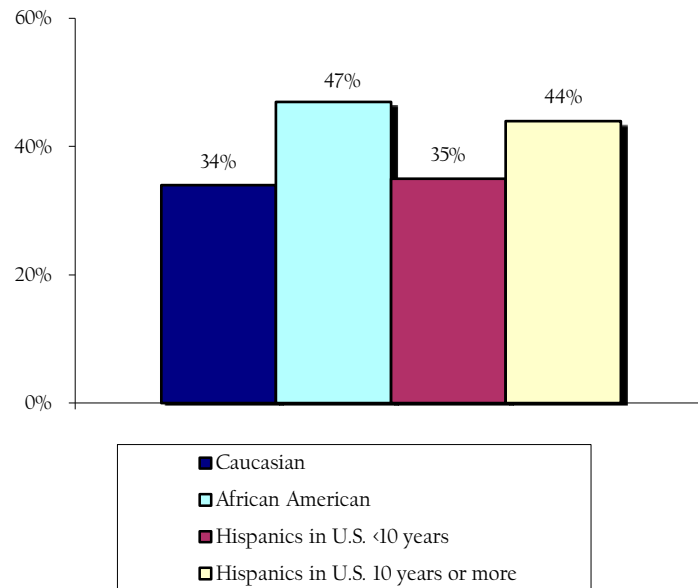
Significantly fewer African Americans reported serving whole grains than did Caucasians and Hispanics.

Percentage of Respondents Who Serve Whole Grains, by Race
(Total Respondents, $N = 1,980$)



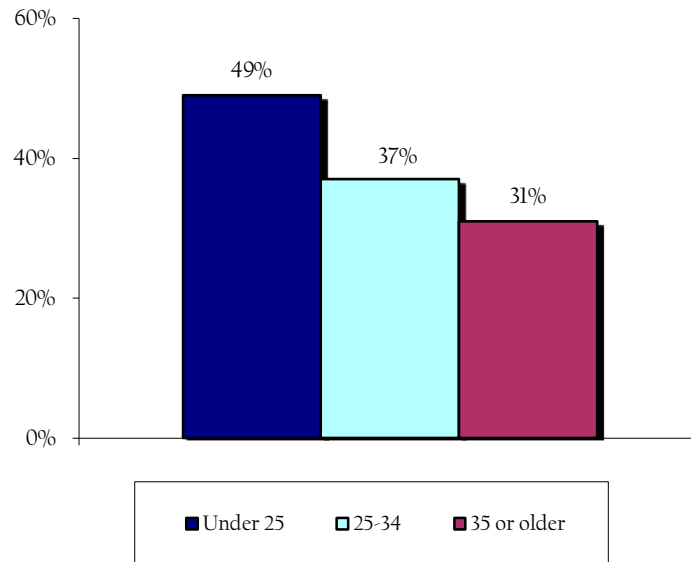
African Americans also reported serving white bread far more frequently than Caucasians and Hispanics who have lived in the U.S. for at least 10 years, although they are on a par with Hispanics who have lived here for less than 10 years.

Percentages of Parents Who Purchase White Bread,
by Ethnicity (Total Respondents, $N = 1,980$)



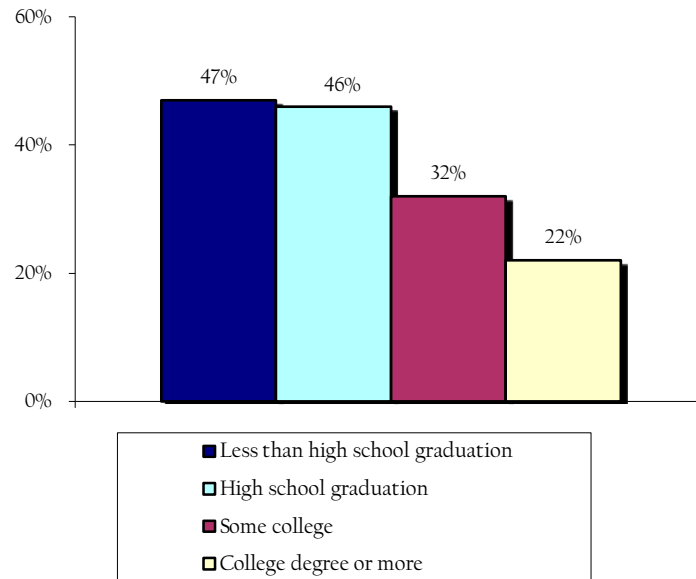
Younger parents are much more likely to serve white bread than are older parents.

Percentages of Parents Who Purchase White Bread,
by Age (Total Respondents, $N = 1,980$)

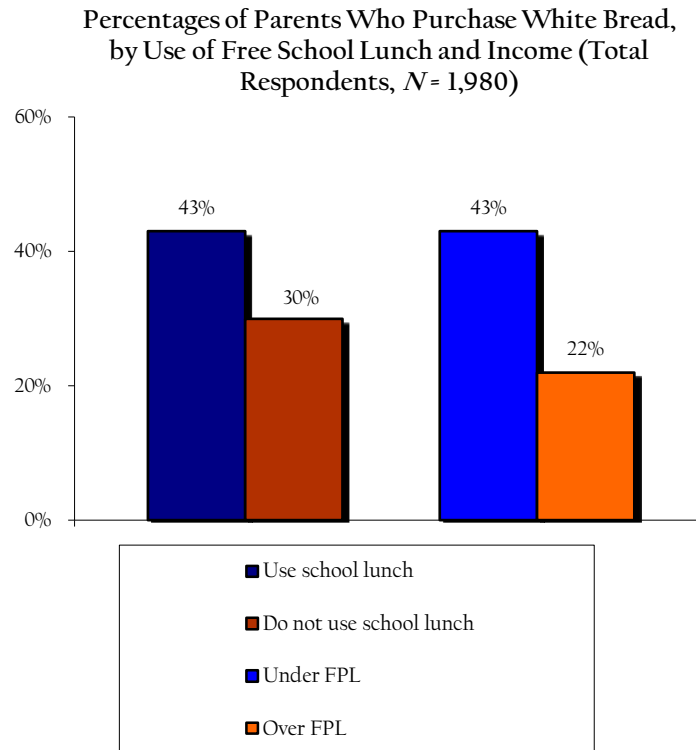


There is a substantial gap in providing whole-wheat bread by educational attainment of the parent. Specifically, parents with a high school education or less provide white bread to their children nearly half the time, yet fewer than a quarter of parents with at least a college degree provide white bread.

Percentages of Parents Who Purchase White Bread,
by Education (Total Respondents, $N = 1,980$)



Two socioeconomic scores, school lunch and income, show results similar to those pertaining to education. Indeed, nearly twice as many parents under the FPL provide their children with white bread than do parents above the FPL.



Parental Consumption

Along with the fruit and vegetable consumption of the children, parental fruit and vegetable consumption was measured as well. This section begins with overall reporting of parental fruit and vegetable consumption and continues with a comparison between consumption of the children and that of the parents.

Fruits and Vegetables

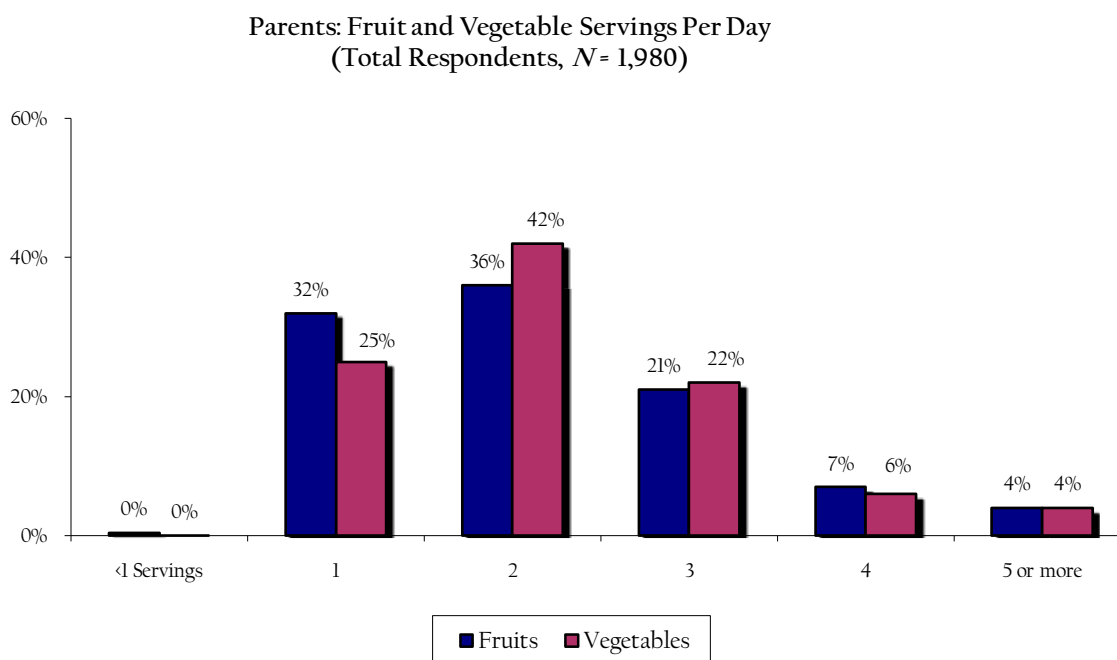
Question 19a: Do you eat more than ONE kind of fruit per day?

Question 19c: Do you eat more than ONE kind of vegetable per day?

Question 19b: How many servings of fruit do you eat per day?

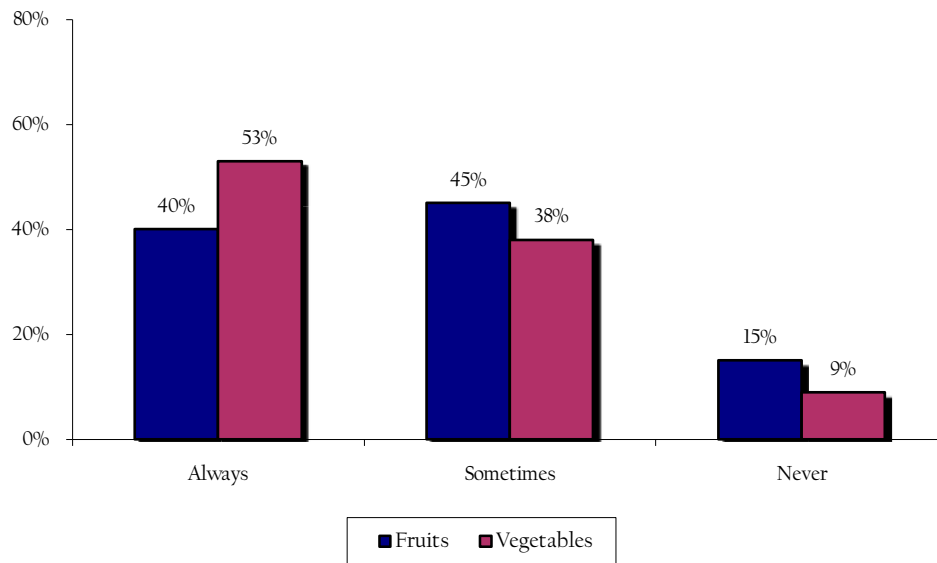
Question 19d: How many servings of vegetables do you eat per day?

Like their children, parents consume an average of two fruits and two vegetables per day. However, the means are flipped, since children were reported to consume 2.5 fruits and 2.2 vegetables per day, while parents consume 2.2 fruits and 2.5 vegetables per day.



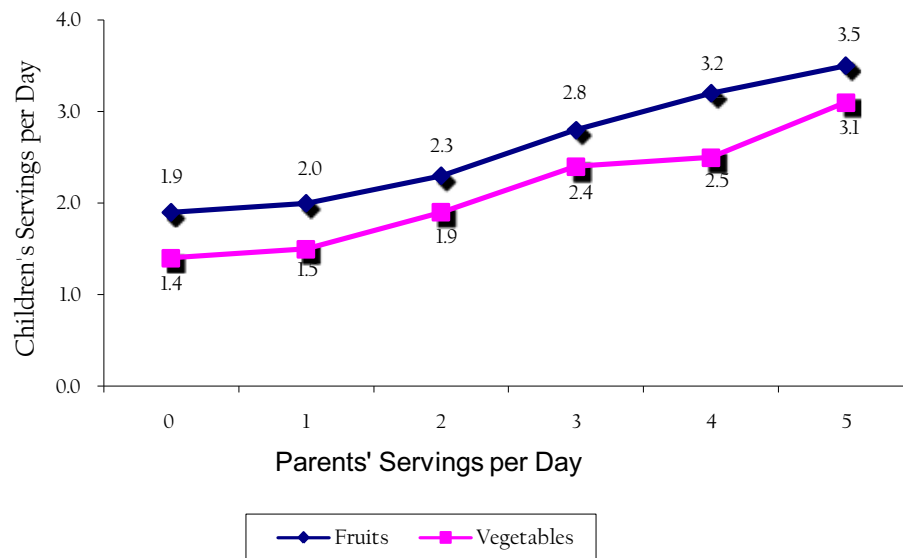
Just over half of the parents reported eating more than one kind of vegetable per day, while two of five reported eating more than one kind of fruit per day. In comparison, while just about the same proportion of children were reported to eat more than one kind of vegetable per day as their parents, nearly three of five children consume more than one type of fruit per day.

Frequency of Parents' Consumption of More Than One Type of Fruit/Vegetable Per Day (Total Respondents, $N = 1,980$)

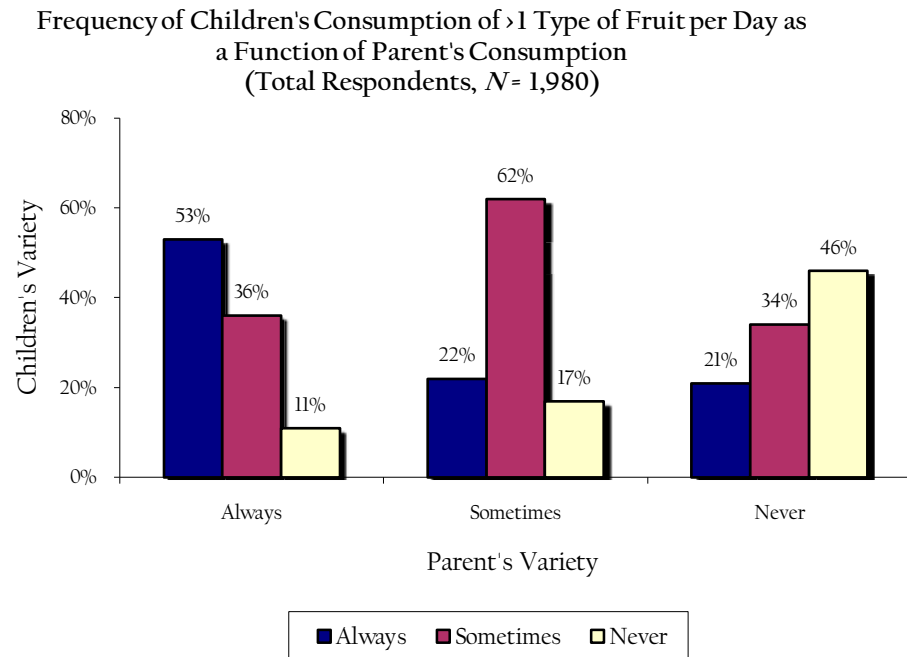


Parental consumption of fruits and vegetables is inextricably linked to children's consumption of fruits and vegetables, although consumption is greater for the children than for the parents. For example, parents who reported eating one serving of fruit also reported that their children, on average, consume 1.5 fruits per day. Children of parents who consume one serving of vegetables per day themselves consume two servings of vegetables per day. Overall, however, there is a clear positive linear trend in that as parental consumption rises, so too does their children's consumption.

Parents' Fruit Servings Per Day as a function of Children's Servings
(Total Respondents, $N = 1,980$)



Similarly, and unsurprisingly there is a strong link between generations when it comes to eating more than one type of fruit and more than one type of vegetable per day. Nearly half of parents who said they never eat “more than one” type of fruit per day reported that their children sometimes or always eat more than one type of fruit per day.



Drinks

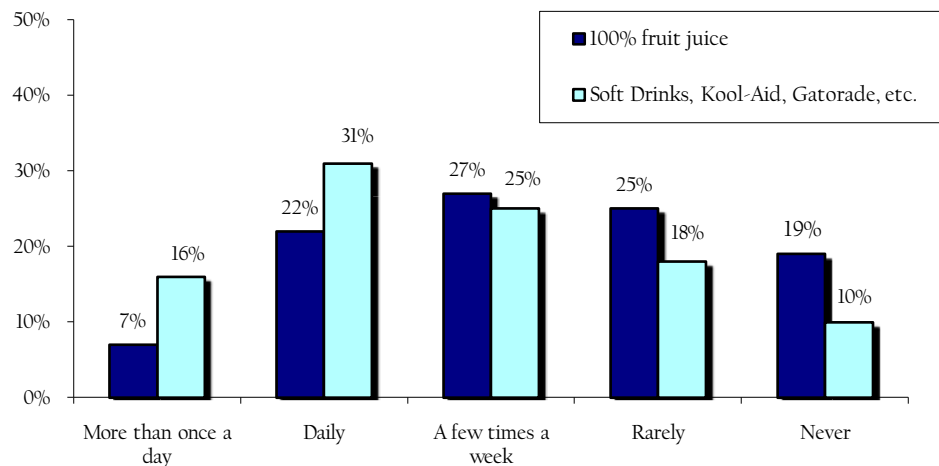
Question 19f: How often do YOU drink 100% fruit juice?

Question 19c: How often do YOU drink soft drinks, Kool-Aid, Gatorade, Sunny Delight, or other fruits drinks or punches?

Question 19e: What kind of milk do you usually drink?

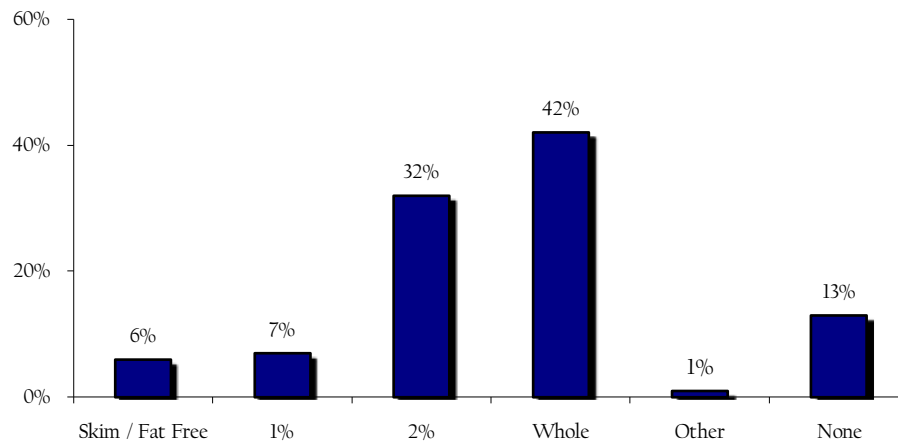
Most parents reported drinking both 100% fruit juice and other drinks either daily or a few times per week. Fifty-nine percent of children were reported to consume fruit juice at least once per day, in comparison with only 29% of parents. Furthermore, while 47% of parents reported drinking soft drinks and similar drinks once per day, only 29% of children consume such drinks daily.

Frequency of Parental Consumption of Juice and Other Drinks
(Total Respondents, $N = 1,980$)

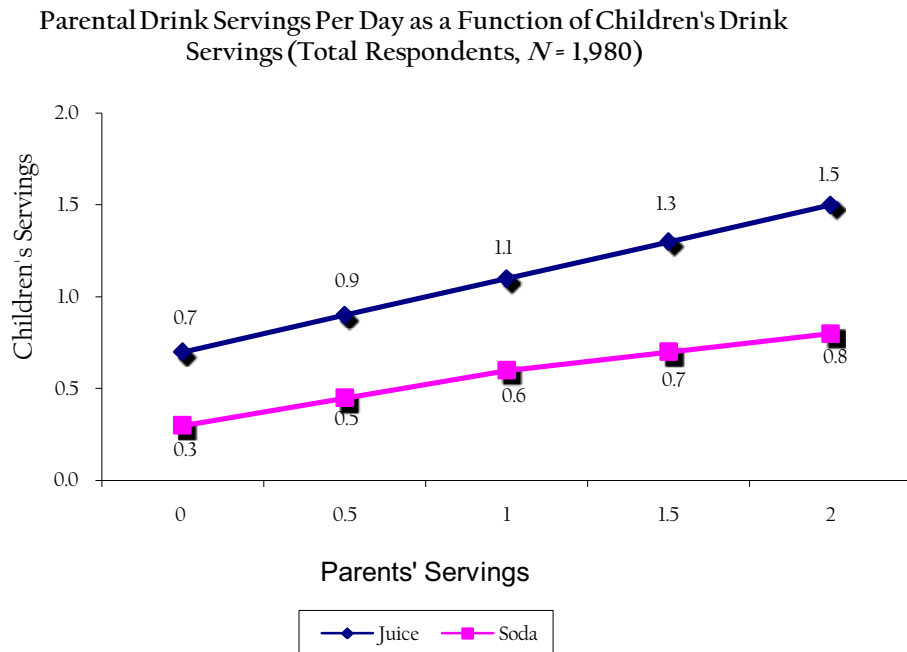


As for children, the type of milk most frequently consumed by parents is whole milk, although a significantly greater proportion of parents reported not drinking any milk at all (13% for parents versus 4% for children).

Type of Milk Usually Drunk by Parents
(Total Respondents, $N = 1,980$)

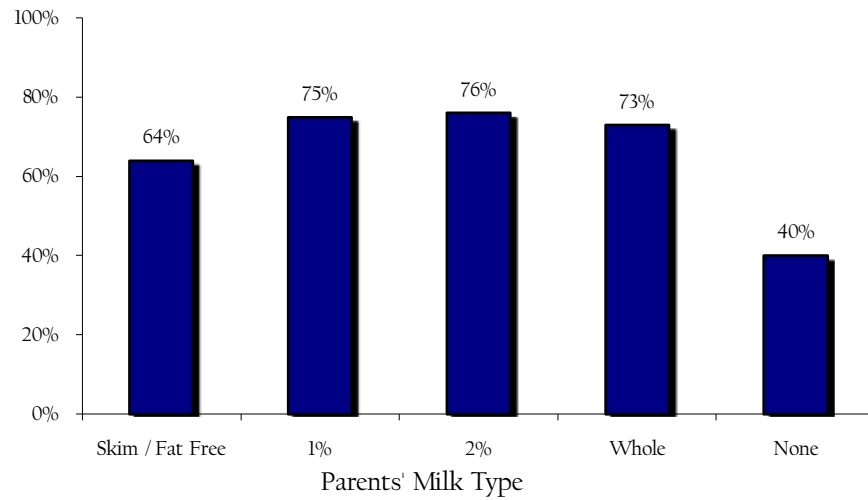


The link between parental consumption of drinks and their children's consumption is strong. Parents who consume one serving of fruit juice per day reported that their children consume 1.1 servings per day on average. The link with soft drinks and similar drinks is also positive, with lower consumption for the children than for the parents. For example, parents who reported consuming one soft drink per day reported that their children consume 0.6 soft drinks per day.

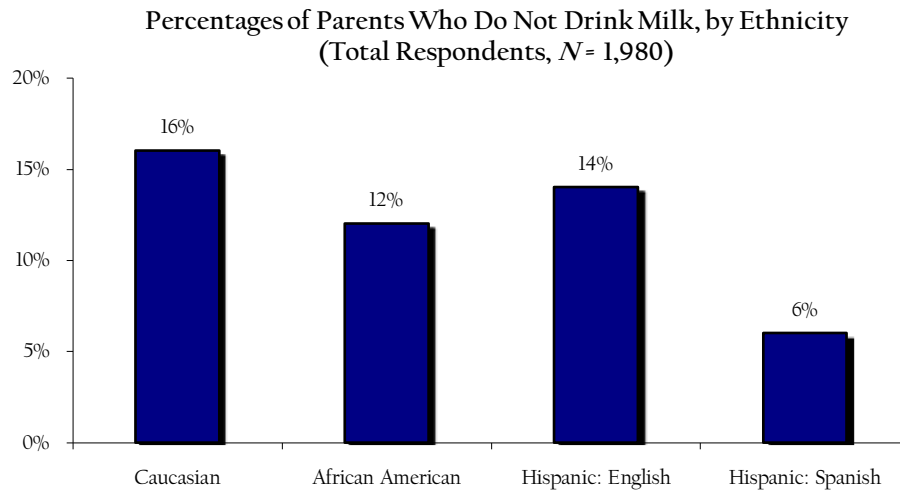


Generally speaking, only one type of milk tends to be drunk in about three quarters of the households surveyed. For example, most parents who reported drinking 2% milk most often also reported that their children consume 2% milk.

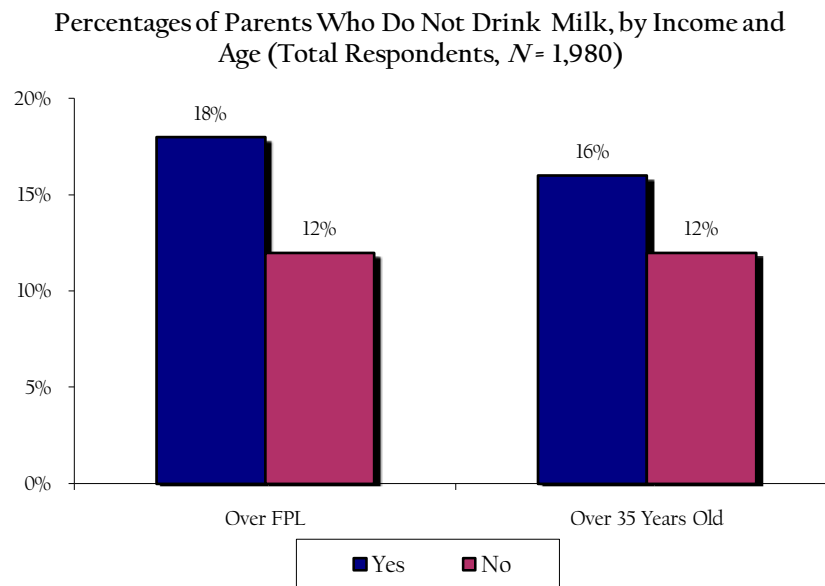
Probability of Children Drinking Same Type of Milk as Parents (Total Respondents, $N = 1,980$)



As the chart illustrates, 40% of the children of parents who do not drink milk also do not drink milk, a disturbing trend. Who are these parents? As the charts below illustrate, they are primarily Caucasian, although Hispanics interviewed in English were nearly as likely as the Caucasians not to drink milk, while Hispanics interviewed in Spanish were the most avid milk drinkers.



There are also strong trends by income and by age.



Reasons for Not Eating Fruits and Vegetables

In the study respondents were questioned on a number of possible reasons for not eating more fruits and vegetables. Respondents were first given the chance to respond in open-ended (unaided) fashion, and then were probed for a number of specific reasons.

Reasons

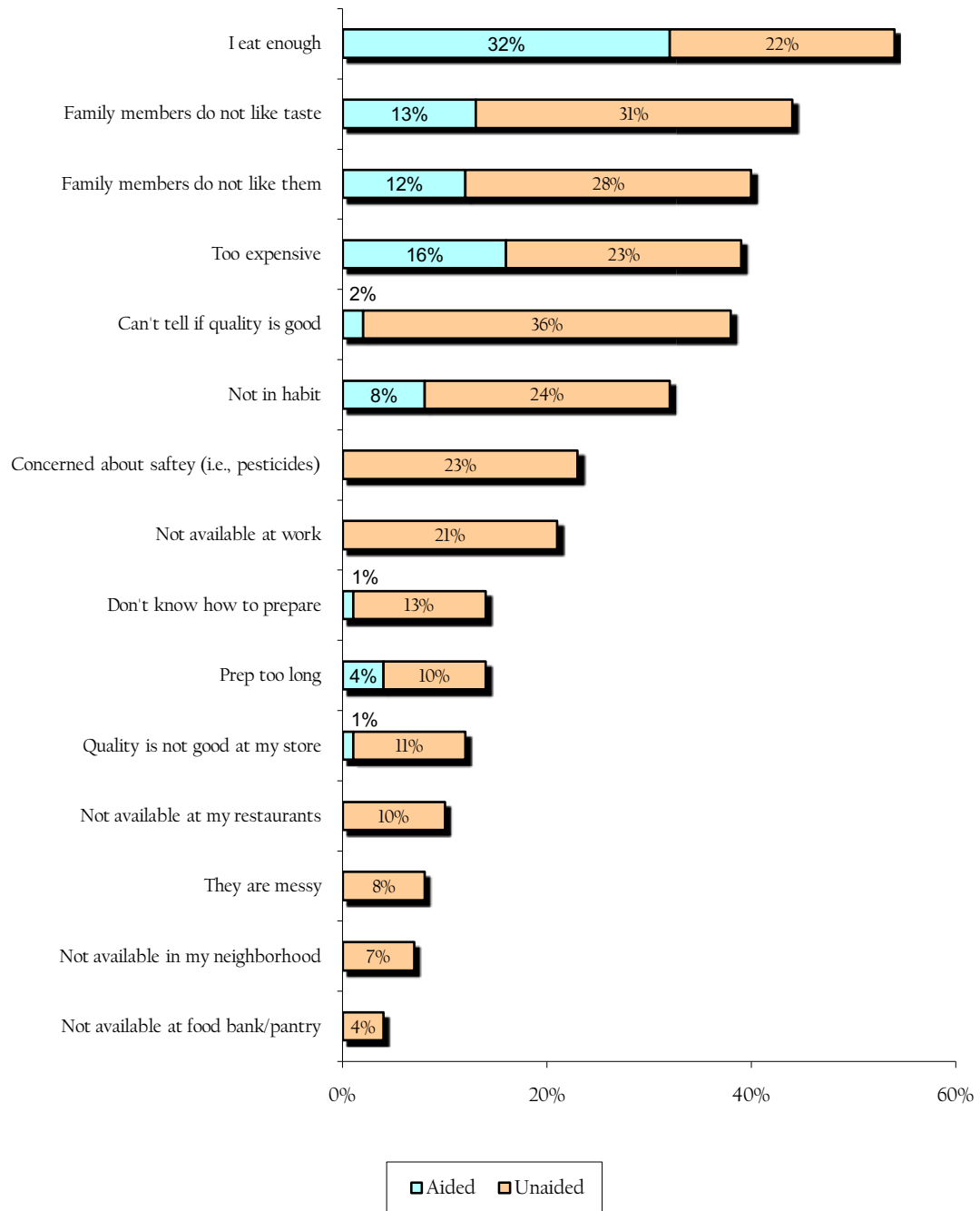
Question 21a: What is the main reason your family does not eat more fruits and vegetables?

Question 21b: Now I would like to read you a list of reasons some parents have given for why their families do not eat more fruits and vegetables. As I read each reason, please tell me if you agree or disagree that this is a reason your family does not eat more fruits and/or vegetables.

As is shown on the following page, the two most frequent explanations for why respondents' families do not consume more fruits and vegetables were simply that they feel their families eat enough and that these foods are too expensive. Concern about taste was another important reason. Although very few people spontaneously explained that they cannot tell if the quality is good, when prompted just over a third admitted that this was true.



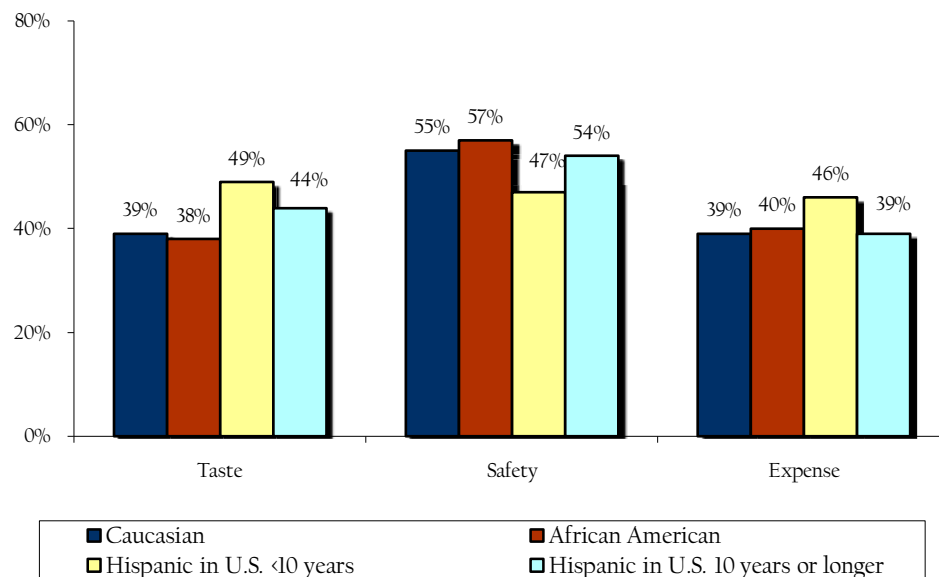
Reasons for Not Eating More Fruits and Vegetables
(Total Respondents, N = 1,980)



The respondents' reasons for not eating more fruits and vegetables were categorized into scales (see the Appendix B – Methodology) for a clearer interpretation. These included scales for concerns with regard to taste, expense, availability, preparation, and safety.

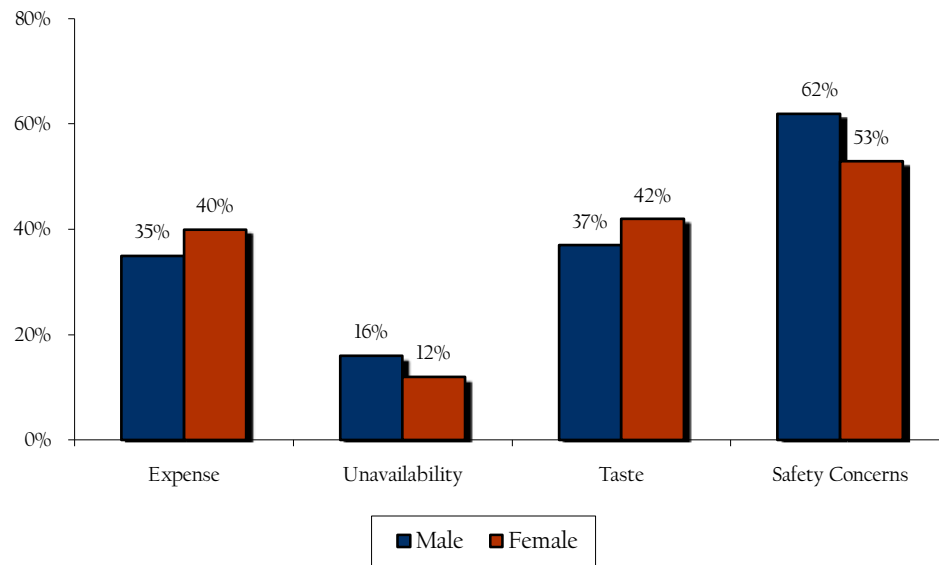
In terms of ethnicity, Hispanics who have been in the U.S. for less than 10 years were found to be more concerned with expense than were other Hispanics, Caucasians, and African Americans. Long-term Hispanic residents of the U.S. were also disproportionately concerned that their families would not like the taste. On the other hand, they were less concerned about safety.

Reasons for Not Eating Fruits and Vegetables, by Ethnicity (Total Respondents, *N* = 1,980)

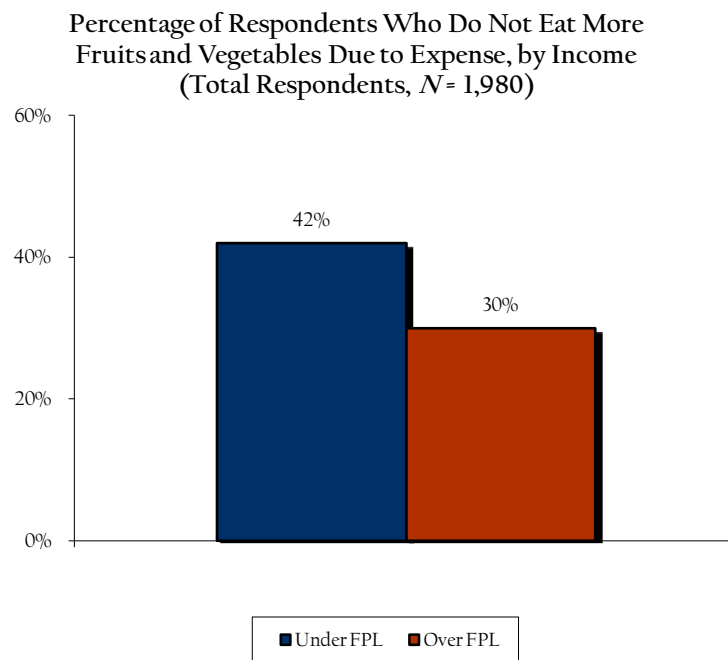


Men were more likely than women to say that their families do not eat more fruits and vegetables because of safety and availability concerns; conversely, women were more likely than men to attribute it to expense and taste.

Reasons for Not Eating Fruits and Vegetables, by Gender (Total Respondents, $N = 1,980$)



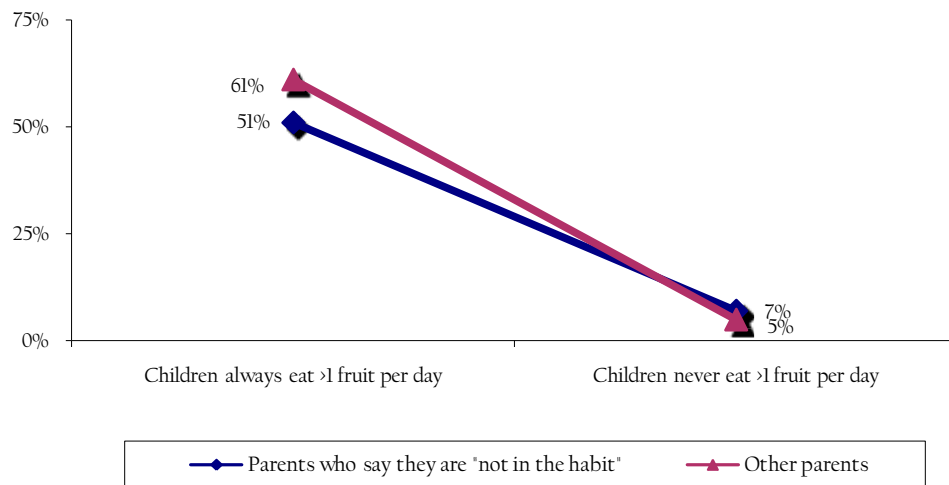
Unsurprisingly, respondents under the FPL were 12% more likely to say that expense is a significant reason for not consuming more fruits and vegetables.



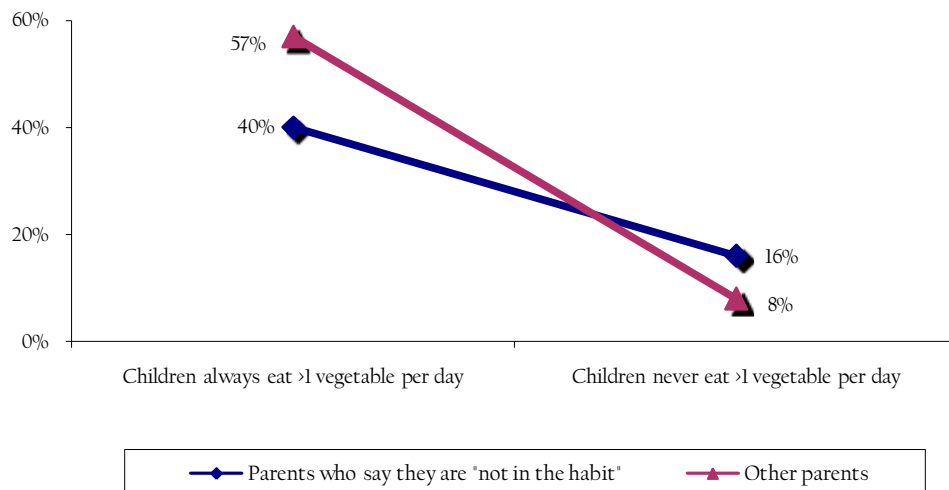
While it is important to know how many people offered each reason for not eating more fruits and vegetables, what is far more important is whether such reasons are associated with actual behavior. That is, on the basis of the reasons an individual gives for not eating fruits and vegetables, how likely is it that he or she will in fact not eat fruits and vegetables?

Parents who said they are not in the habit of providing fruits and vegetables are 17 percentage points less likely than other parents to say their children always get two types of vegetables per day. Similar results are evident with regard to fruit, with a ten-percentage-point difference.

Parents "Not In the Habit" of Eating Fruit as a Function of Children Eating
>1 Fruit per Day (Total Respondents, $N = 1,980$)

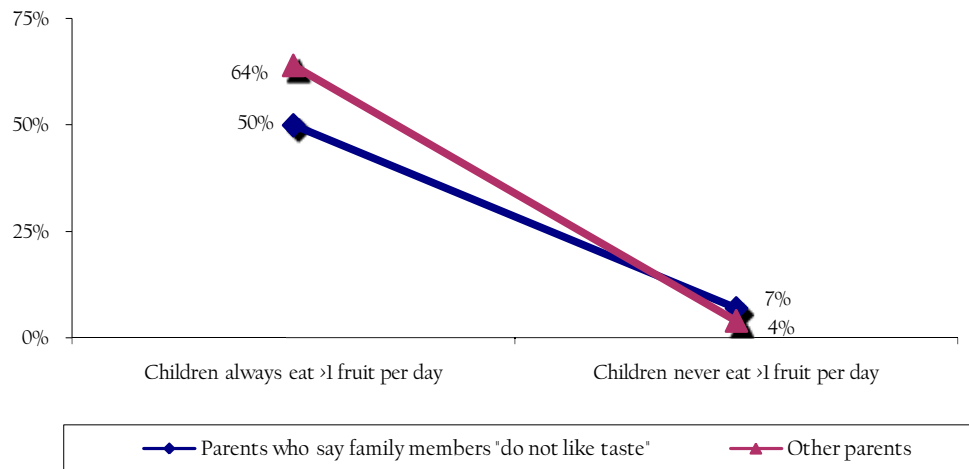


Parents "Not In the Habit" of Eating Vegetables as a Function of Children
Eating >1 Vegetable per Day (Total Respondents, $N = 1,980$)

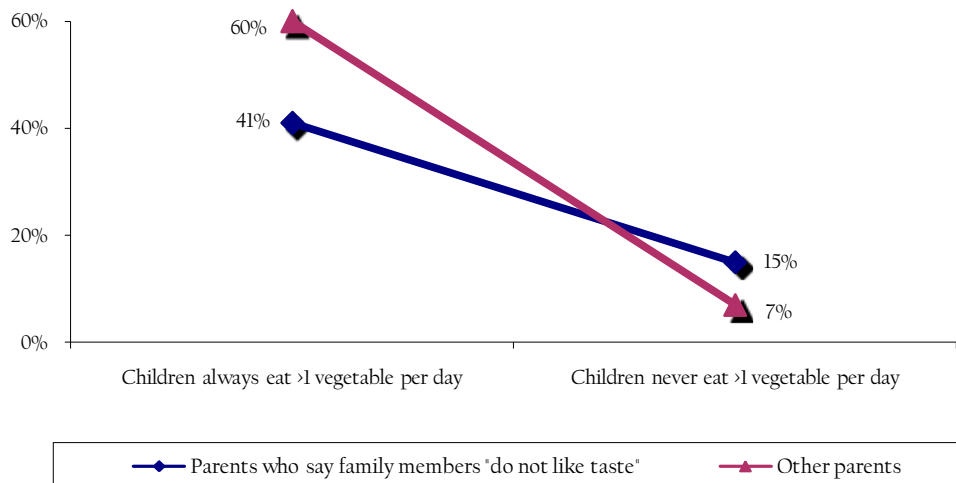


The following four graphs illustrate similar results for two other reasons: not liking the taste, and having family members who are picky.

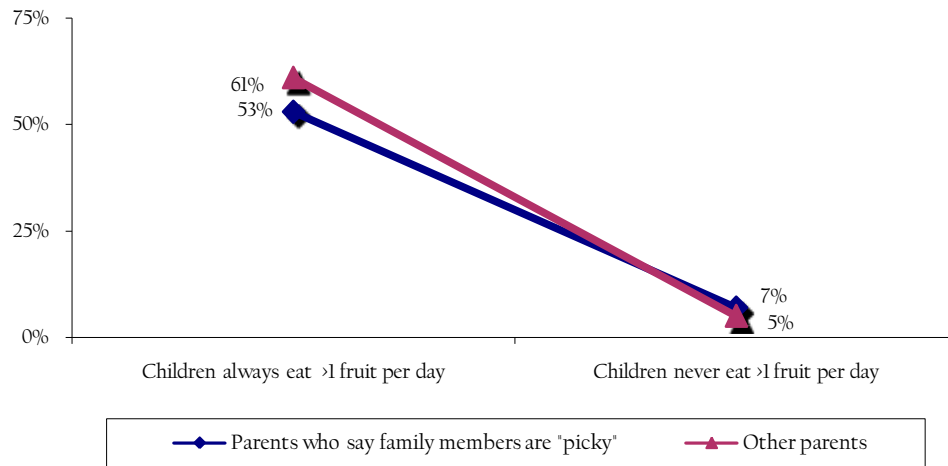
Parents Who Say Family Members "Don't Like the Taste" as a Function of Children Eating >1 Fruit per Day (Total Respondents, $N = 1,980$)



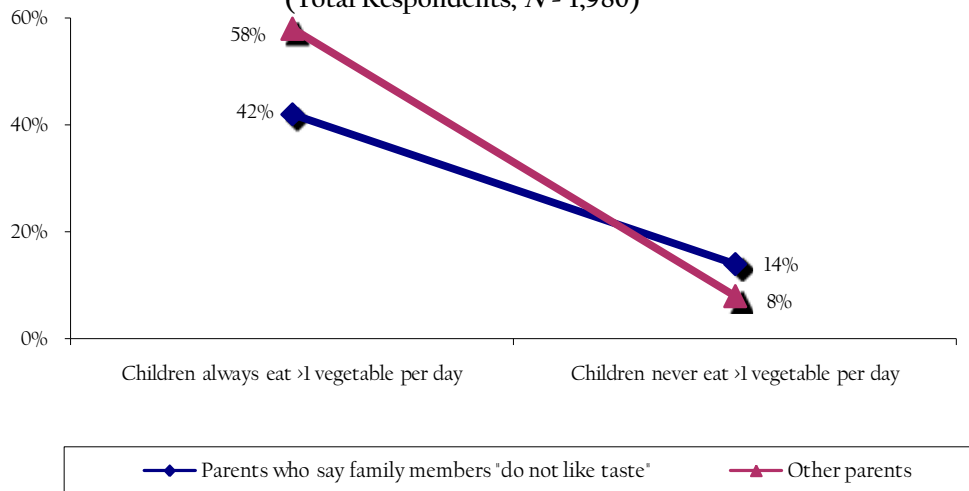
Parents Who Say Family Members "Don't Like the Taste" as a Function of Children Eating >1 Vegetable per Day (Total Respondents, $N = 1,980$)



Percentage of Parents Who Say Family Members Are "Picky" as a Function of Children Eating >1 Fruit per Day
(Total Respondents, $N = 1,980$)

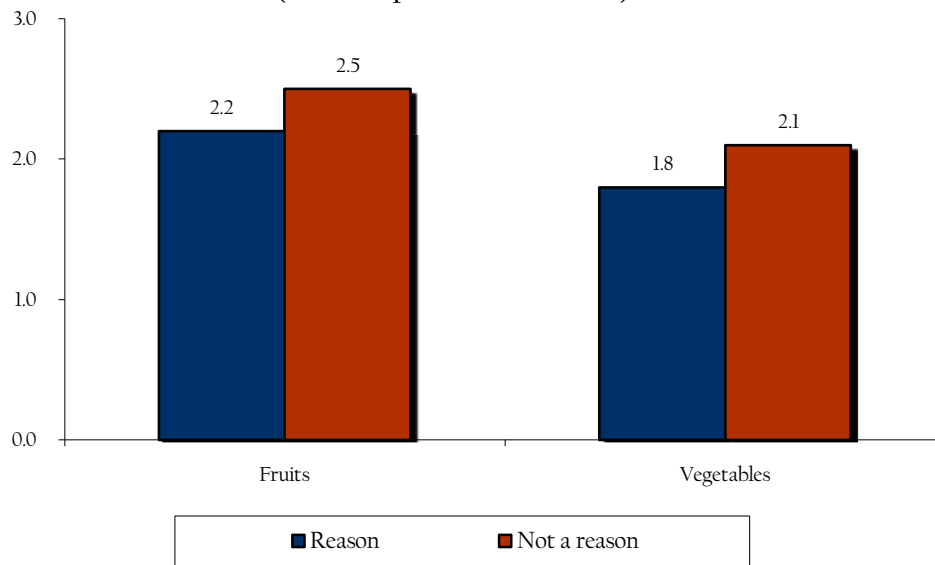


Percentage of Parents Who Say Family Members Are "Picky" as a Function of Children Eating >1 Vegetable per Day
(Total Respondents, $N = 1,980$)

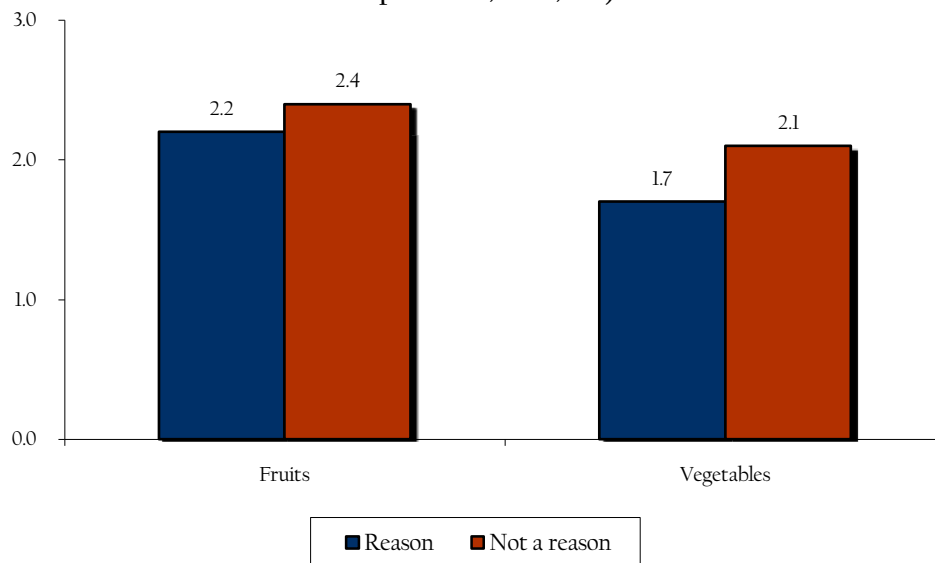


The two most significant reasons for not eating more fruits and vegetables that are linked to the actual number of servings of fruits and vegetables eaten by children per day are that the children do not like the taste and that the family is simply not in the habit of eating fruits and vegetables.

Servings of Fruits and Vegetables per Day as a Function of Whether Taste Is a Reason for Not Eating More
(Total Respondents, $N = 1,980$)



Servings of Fruits and Vegetables per Day as a Function of Whether Not Being in the Habit Is a Reason for Not Eating More (Total Respondents, $N = 1,980$)



Points of Purchase

The survey measured where parents obtained their fruits and vegetables--specifically, from a grocery store, a farmers' market, or some other location.

Grocery Stores and Farmers' Markets

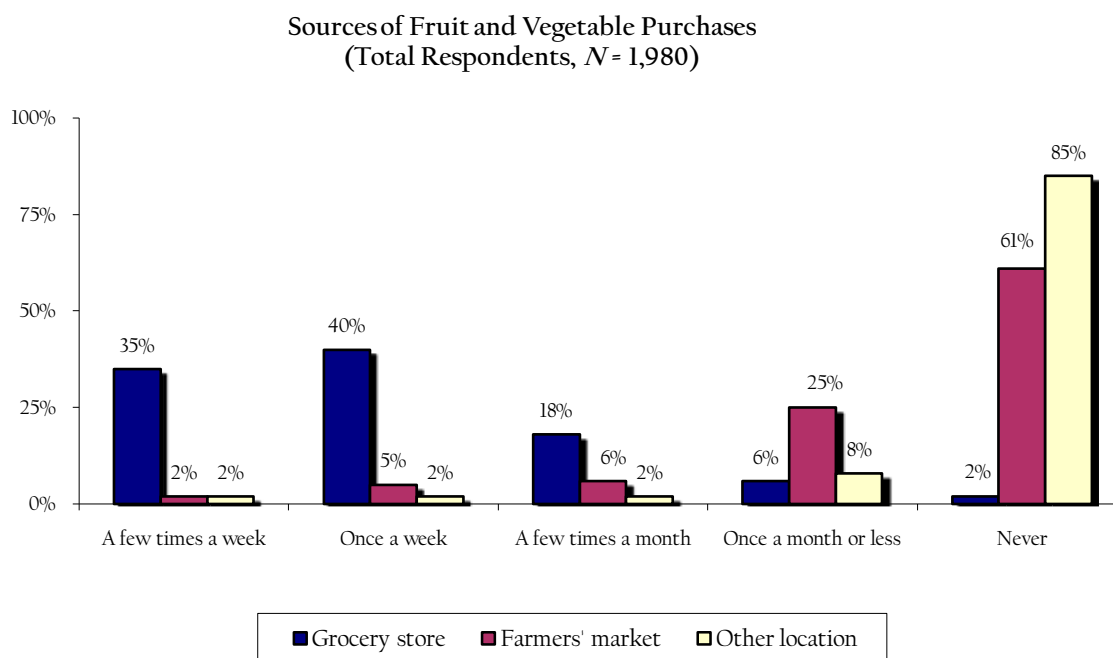
Question 23a: How often do you purchase fruits and vegetables at a grocery store (including Wal-Mart)?

Question 23b: How often do you purchase fruits and vegetables at a farmers' market where multiple farmers bring their produce and sell at one location?

Question 23c: How often do you purchase fruits and vegetables someplace other than a grocery store or farmer's market?

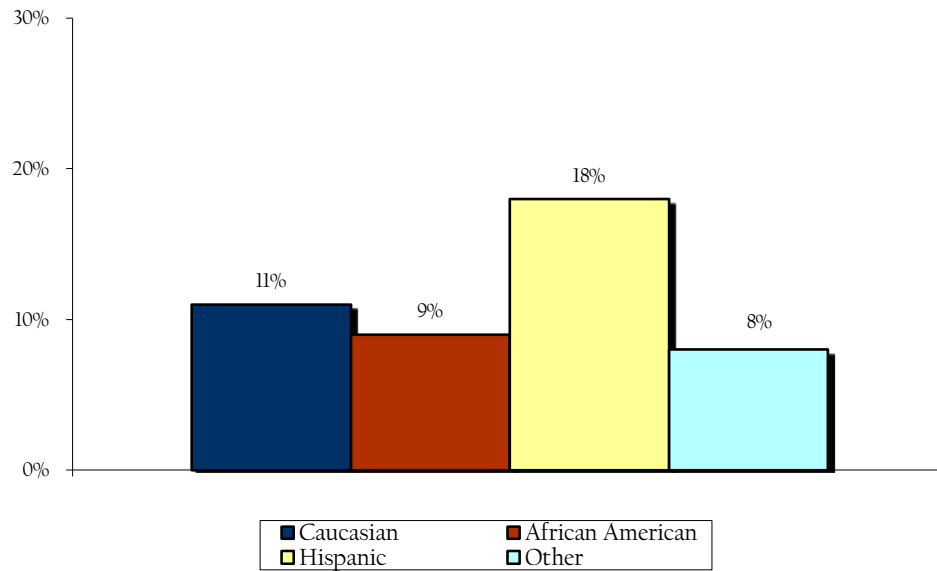
Question 22: Do you agree or disagree with the following statement? It is convenient for you to get good quality fruits and vegetables at stores or markets in your neighborhood.

The vast majority of respondents said that they get their fruits and vegetables from grocery stores. Only a third of respondents ever go to farmers' markets, and the vast majority of them only go once a month or less.



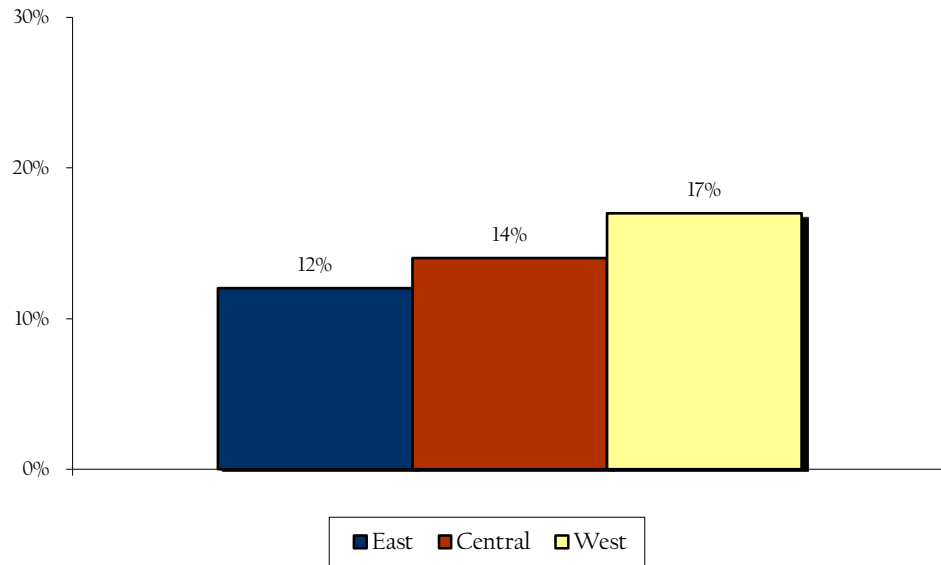
Hispanics are much more likely than members of other ethnic groups to purchase fruits and vegetables at farmers' markets--in fact, twice as likely as African Americans.

Weekly Purchasing at Farmers' Markets, by Ethnicity
(Total Respondents, $N = 1,980$)



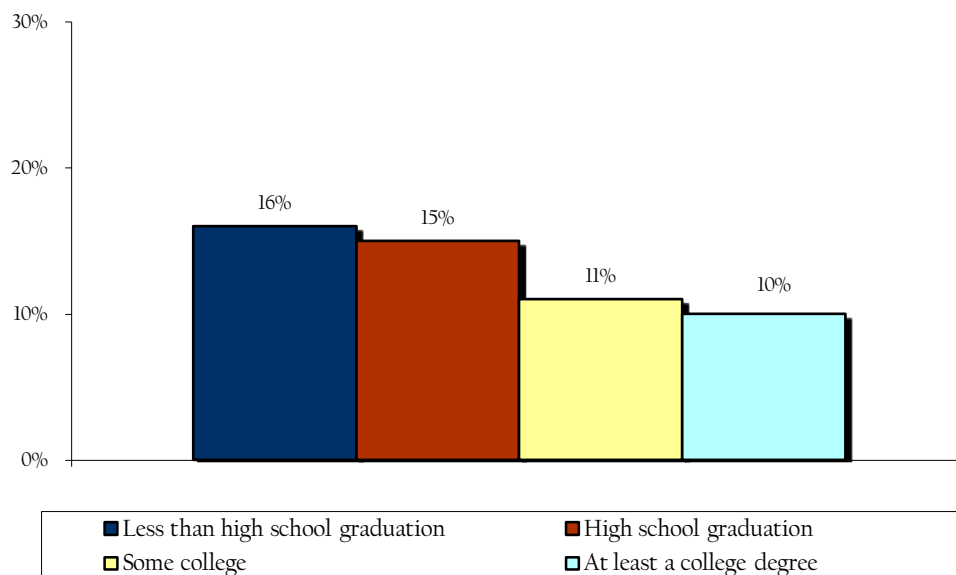
Farmers' markets are more popular in the western portion of the state.

Weekly Purchasing at Farmers' Markets, by Region of Texas (Total Respondents, $N = 1,980$)



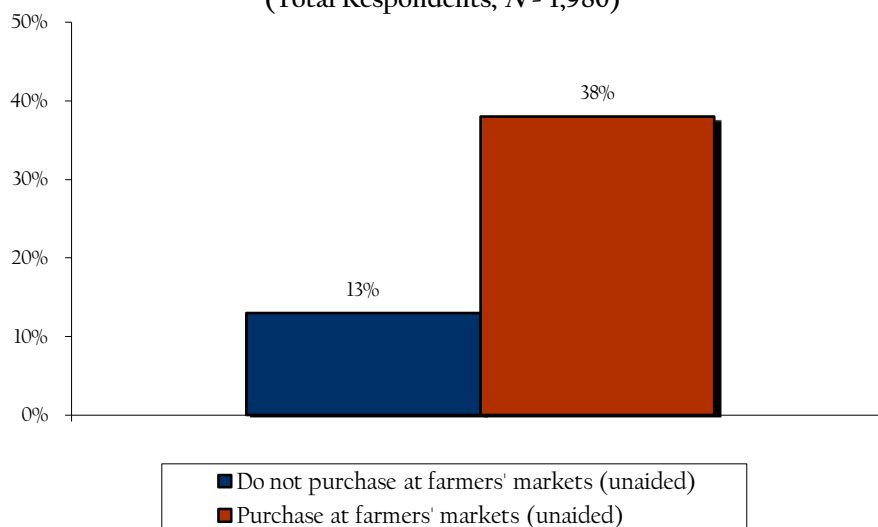
Farmers' markets are more popular with persons with no college education.

Weekly Purchasing at Farmers' Markets, by Education
(Total Respondents, $N = 1,980$)



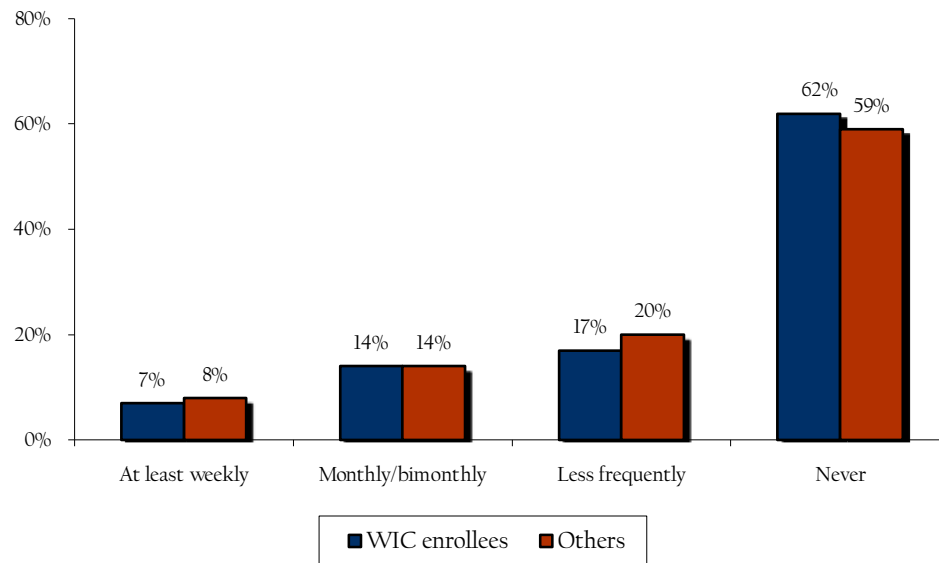
Those who said that they do not eat more fruits and vegetables because they are too expensive are three times more likely to purchase fruits and vegetables at a farmers' market than are other respondents.

Weekly Purchasing at Farmers' Markets, by Not Eating More
Fruits and Vegetables Because They Are Too Expensive
(Total Respondents, $N = 1,980$)



Given WIC's promotion of the use of farmers' markets, WIC enrollees' frequency of use of farmers' markets was explored. However, no significant difference was found between WIC enrollees and other consumers in this respect.

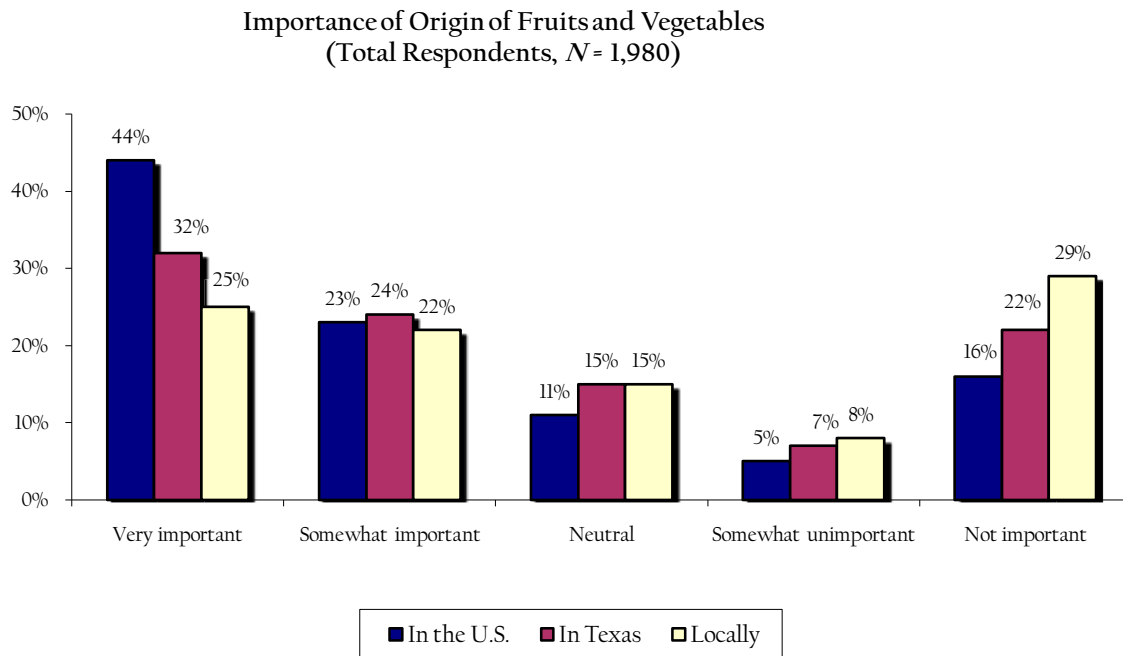
Frequency of Purchasing at Farmers' Markets, by WIC Enrollment
(Total Respondents, *N* = 1,980)



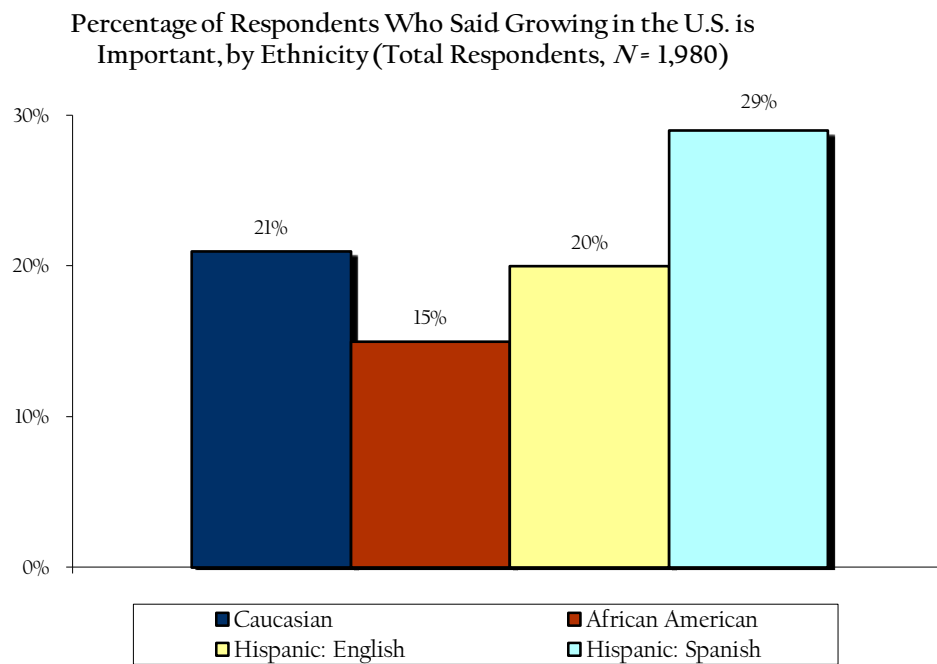
Importance of Local Growing

Questions 24a-c: How important is it to you to purchase fruits and vegetables that are grown in the U.S./in Texas/locally, meaning in the specific area around your town?

Most respondents answered that it is at least somewhat important that food be grown in the United States, with fewer saying it is important that they be grown in Texas and even fewer saying it is important that they be grown locally.

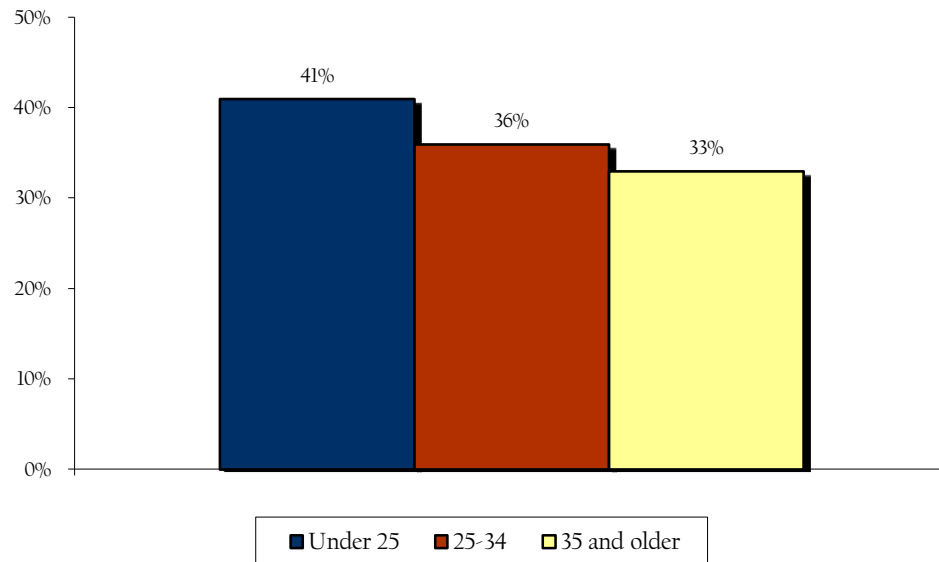


Hispanics who speak Spanish are significantly more likely than others to place importance on growing of fruits and vegetables in the U.S.

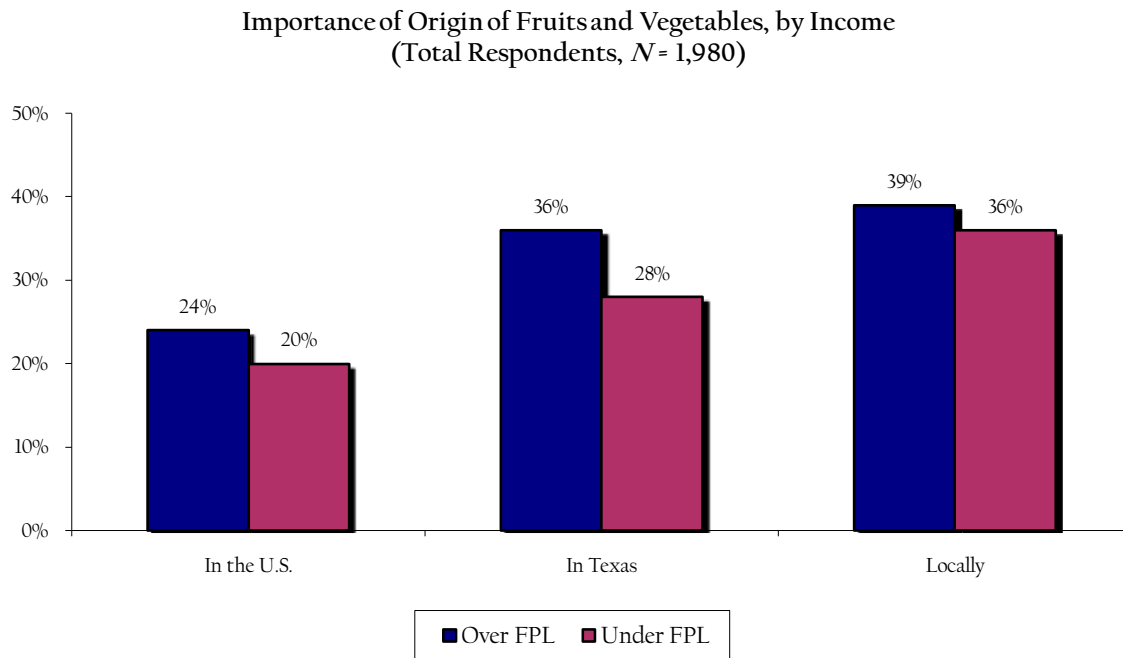


Younger respondents are somewhat more likely to place importance on local growing of fruits and vegetables than are older respondents.

Percentage of Respondents Who Said Growing Locally is Important,
by Age (Total Respondents, $N = 1,980$)



Generally speaking, respondents with incomes over the FPL are more likely to feel that fruits and vegetables should be grown not only in the U.S., but in Texas and locally as well.



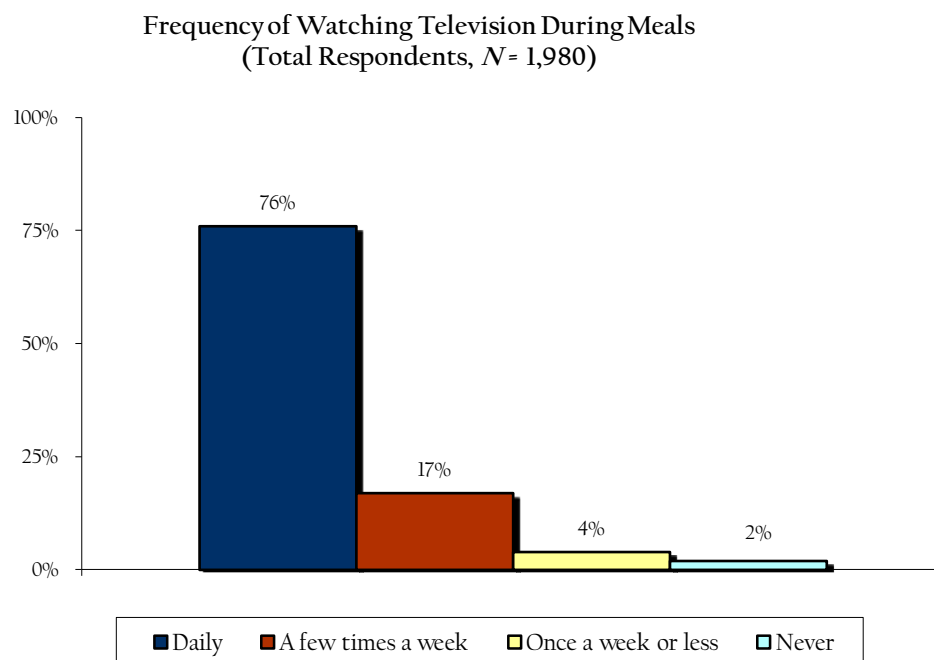
Environmental Factors

Historically, there has been significant concern that a variety of environmental factors are linked to the quality of the meals provided to children. This section explores the links between meal quality and television viewing while eating, physical activity, and neighborhood quality.

Television

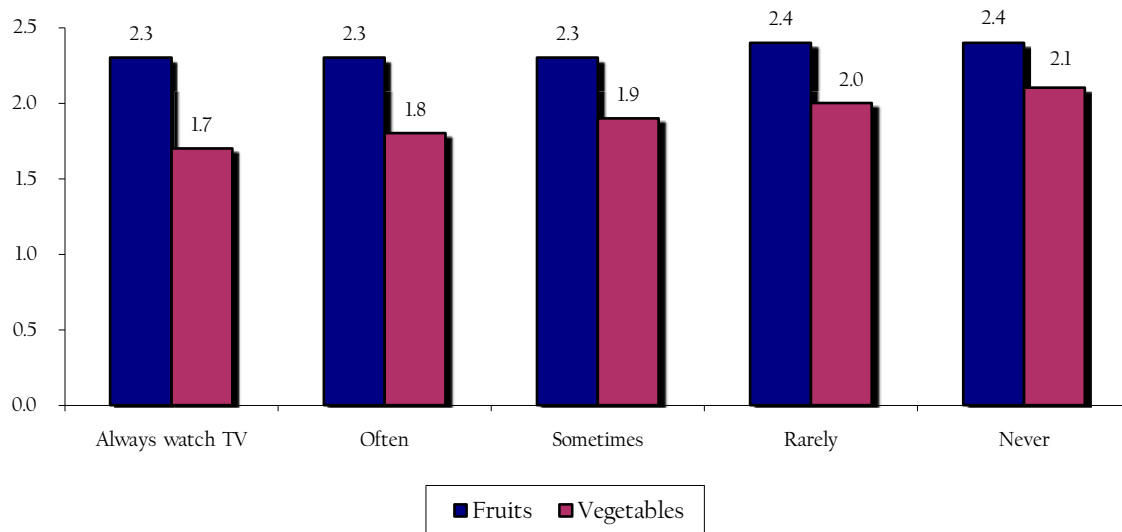
Question 15: How often does your family watch television while eating a meal?

Three of four families eat at least one meal per day in front of the television.



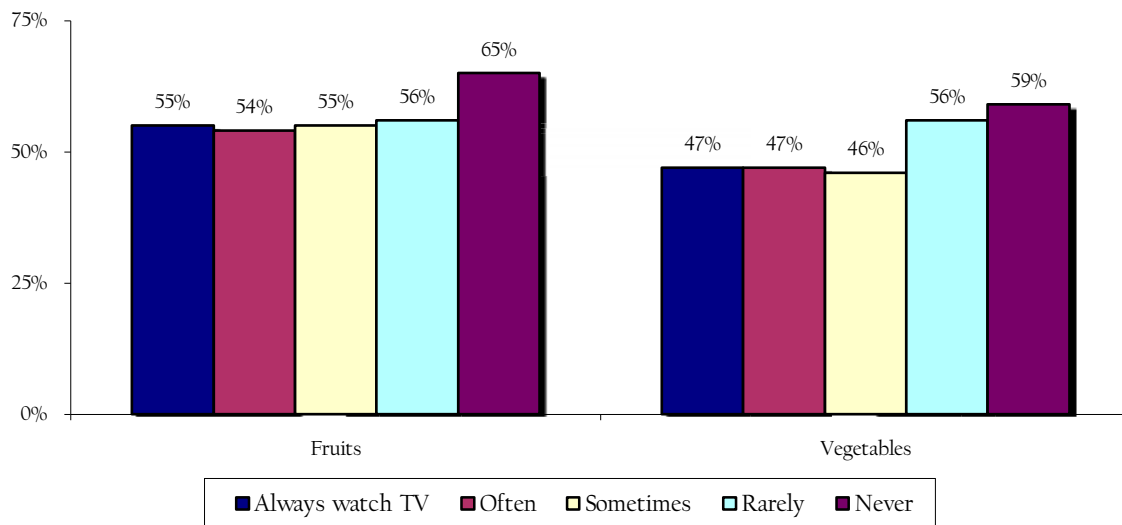
There is a modest link between vegetable consumption and the frequency with which families eat meals in front of the television. Specifically, families who never watch television during meals eat 25% more servings of fruits and vegetables than do families who always watch television during meals.

Fruit and Vegetable Servings per Day as a Function of Television Watching During Meals (Total Respondents, $N = 1,980$)



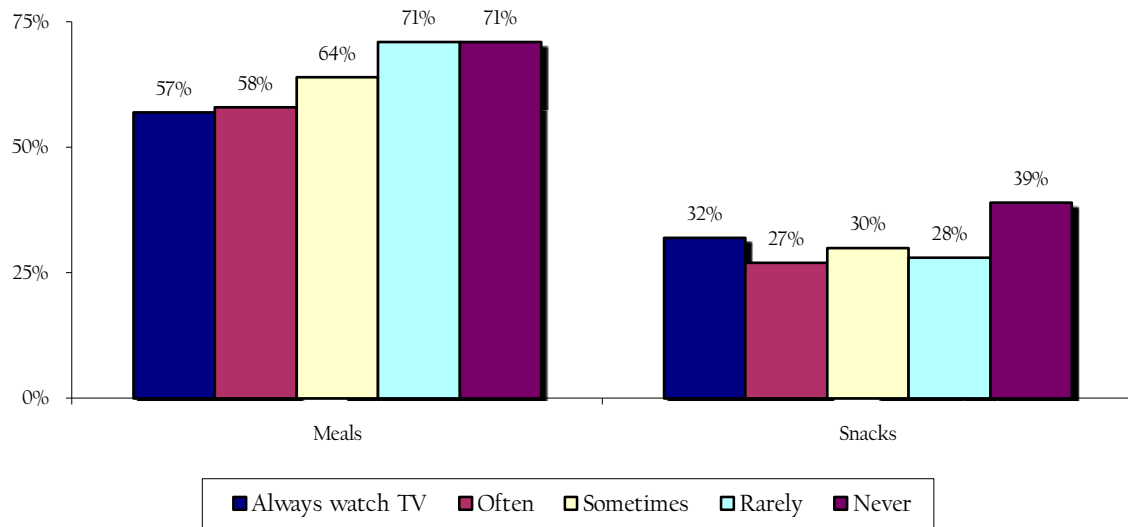
Among those who watch varying amounts of television during meals, there is little difference in the rates of consumption of at least two kinds of fruits and two kinds of vegetables per day. By contrast, those who never watch television during meals were significantly more likely to say that their children eat at least two kinds of fruits and two kinds of vegetables per day.

Percentages of Respondents Who Always Eat Two Fruits/Two Vegetables per Day, by Television Watching During Meals
(Total Respondents, $N = 1,980$)



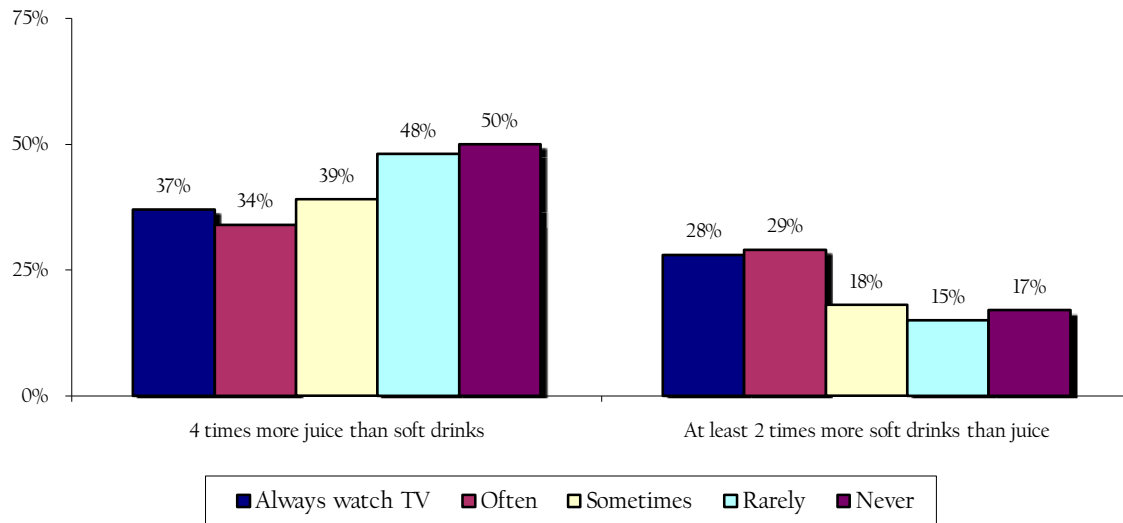
Similarly, respondents who say their families never eat meals in front of the television are much more likely to say that fruits and vegetables are always part of meals and snacks than are those whose families watch any amount of television during meals.

Percentages of Respondents Whose Meals/Snacks Always Include Fruits and Vegetables, by Television Watching During Meals (Total Respondents, $N = 1,980$)



There is a substantial relationship between watching television during meals and the provision of 100% fruit juice as opposed to soft drinks. Those who rarely or never watch television are about one third less likely to serve their children more soft drinks than juice than vice versa.

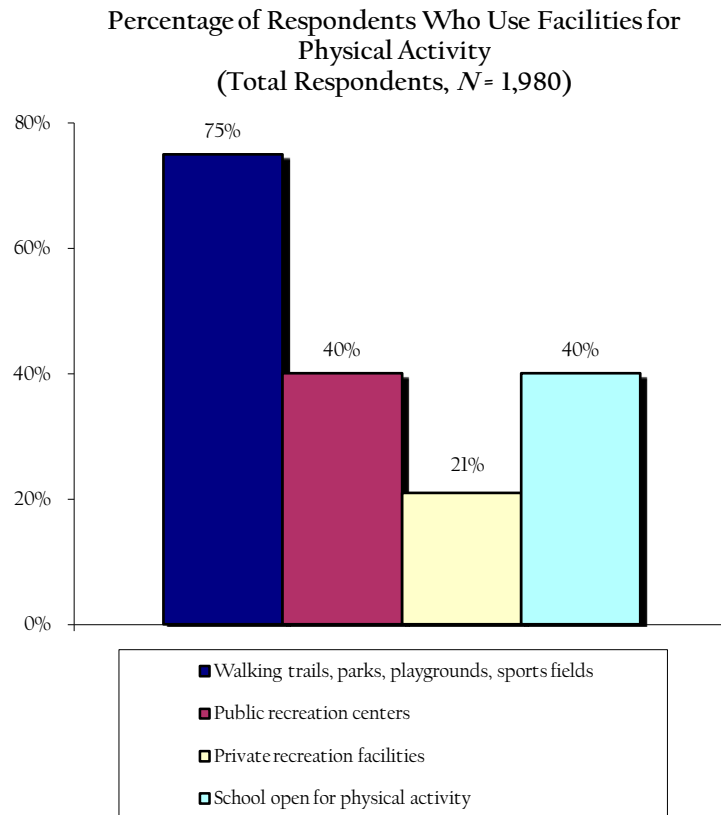
Consumption of Soda vs. Juice, by Television Watching During Meals
(Total Respondents, *N* = 1,980)



Physical Activity

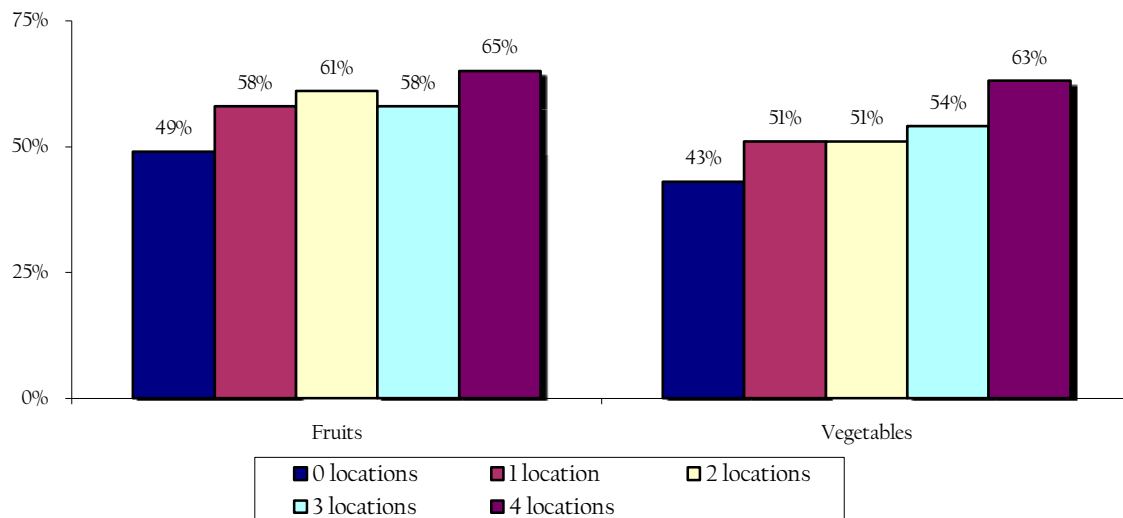
Questions 29a-d: Do you use walking trails, parks, playgrounds, or sports fields/public recreation centers/private or membership-only recreation facilities/schools that are open in your community for physical activity?

Three of four parents use walking trails, parks, playgrounds, or sports fields for physical activity, while two out of five reported the use of public recreation centers or schools.

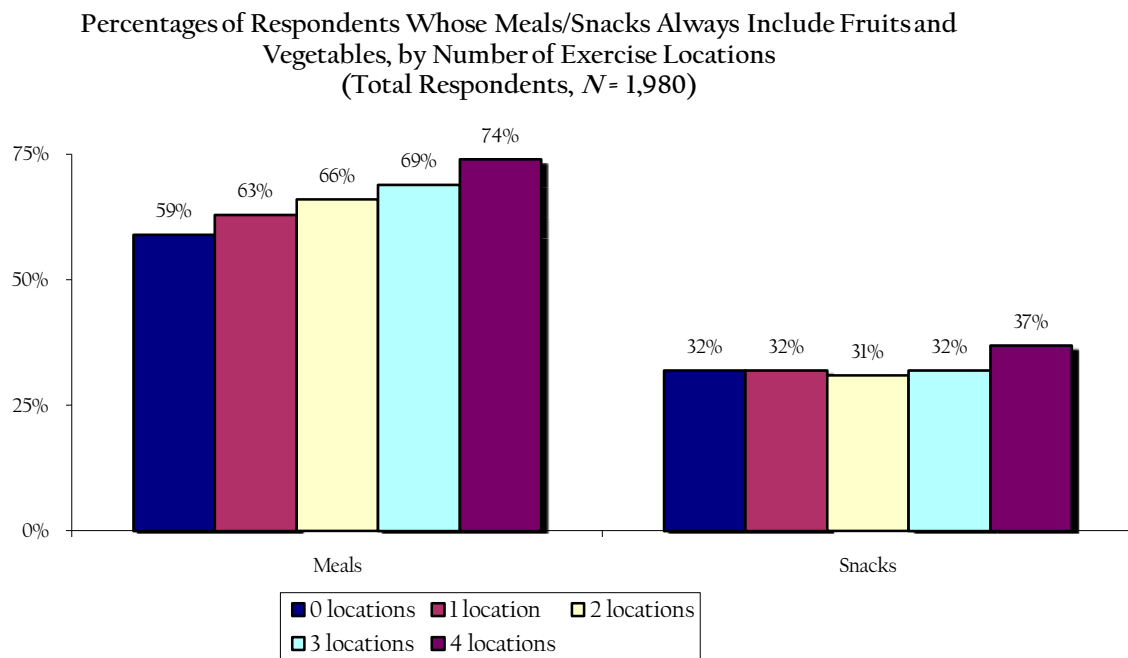


The more respondents reported using different locations for physical activity, the more they also reported providing two different kinds of fruits and vegetables to their children each day. Generally, those who exercise at the most locations are a third more likely to say their children get two kinds of fruits and vegetables per day than those who exercise at the fewest locations.

Percentages of Respondents Who Always Eat Two Fruits/Two Vegetables per Day, by Number of Exercise Locations (Total Respondents, $N = 1,980$)



Similarly, though not as robust, relationships are found between number of exercise locations and always having fruits and vegetables as part of meals and snacks.



Neighborhood Quality

Question 30a: Overall, how would you rate your neighborhood as a place to walk? Would you say your neighborhood is a pleasant place to walk?

Question 30b: For walking at night, would you describe the street lighting in your neighborhood as excellent, good, fair, or poor?

Question 30c: Does your neighborhood have sidewalks?

Question 30d: How safe from crime do you consider your neighborhood to be?

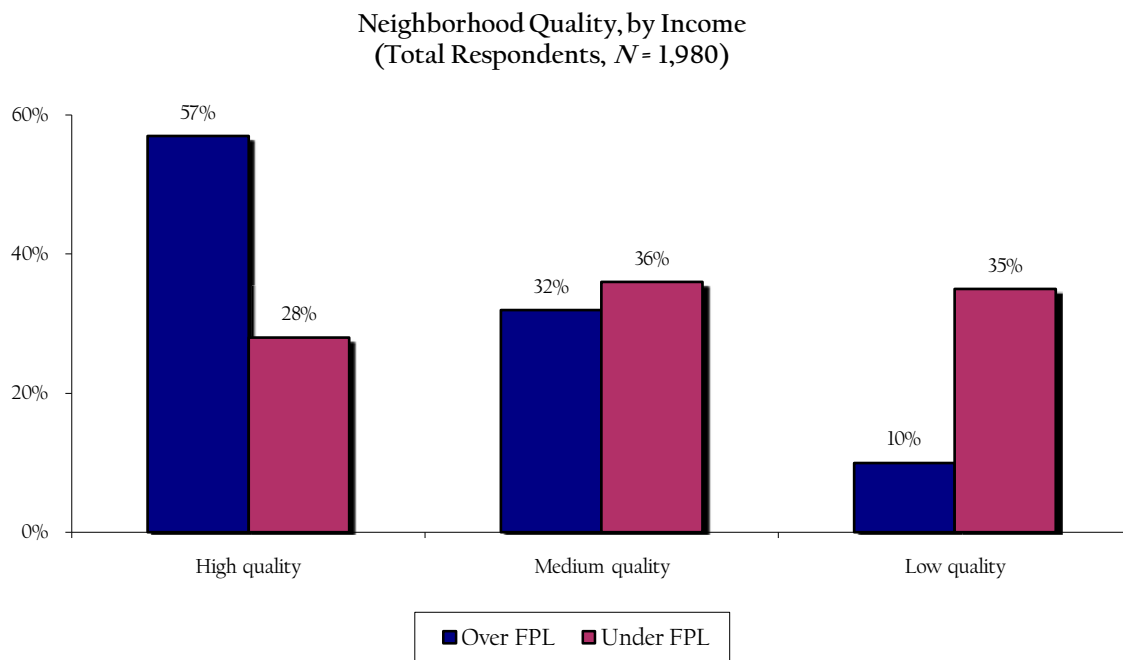
Question 30e: Generally speaking, would you say most people in your neighborhood can be trusted?

Two thirds of respondents said that their neighborhoods are pleasant for walking, have sidewalks, and are safe from crime.

Neighborhood Quality	
<u>Pleasant for Walking</u>	Percent
Very	42
Somewhat	29
Neutral	16
Not very	8
Not at all	5
<u>Street Lighting</u>	
Excellent	11
Good	27
Fair	32
Poor	31
<u>Sidewalks</u>	
Yes	62
No	38
<u>Safe from Crime</u>	
Very	34
Somewhat	32
Neutral	17
Not very	10
Not at all	6
<u>Trustworthy Neighbors</u>	
Yes	70
No	30

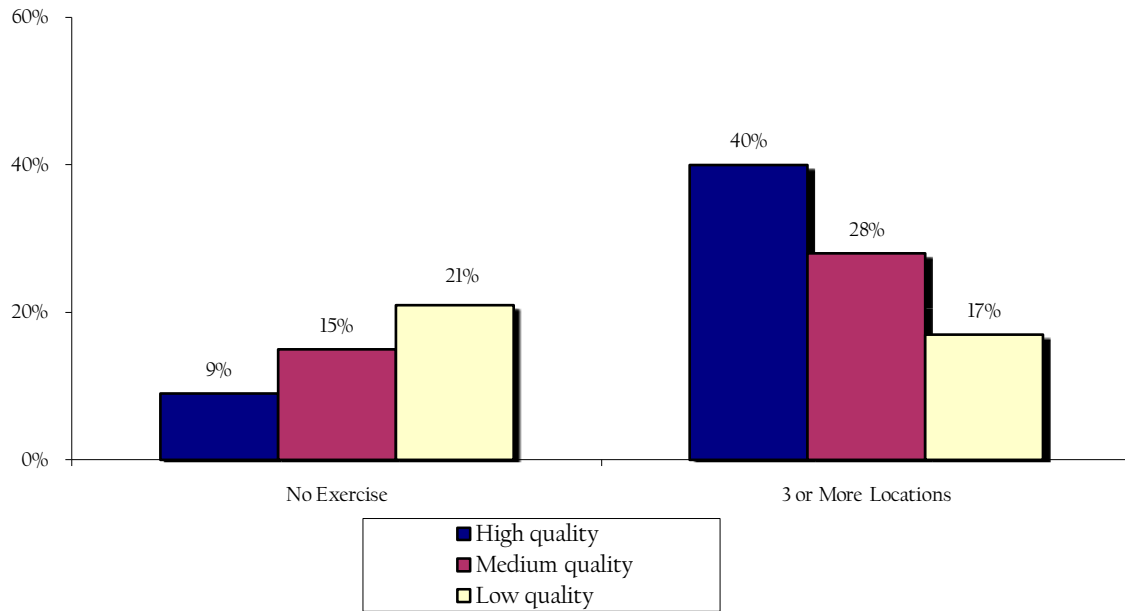


The neighborhood quality measures were combined into an overall neighborhood quality scale (see the Appendix B – Methodology) and divided into a three-part measure of high, medium, and low quality. Respondents above the FPL were, unsurprisingly, twice as likely as those below the FPL to rate their neighborhoods as high quality. Conversely, respondents under the FPL were 3.5 times more likely than those with higher incomes to rate their neighborhood quality as low.



There is a strong link between neighborhood quality and exercise, as those who rate their neighborhood quality as high are over twice as likely to exercise in multiple locations than are respondents who gave low ratings to the quality of their neighborhoods.

Exercise, by Neighborhood Quality
(Total Respondents, $N = 1,980$)



Advertising

The survey measured awareness of advertising about foods in a variety of locations.

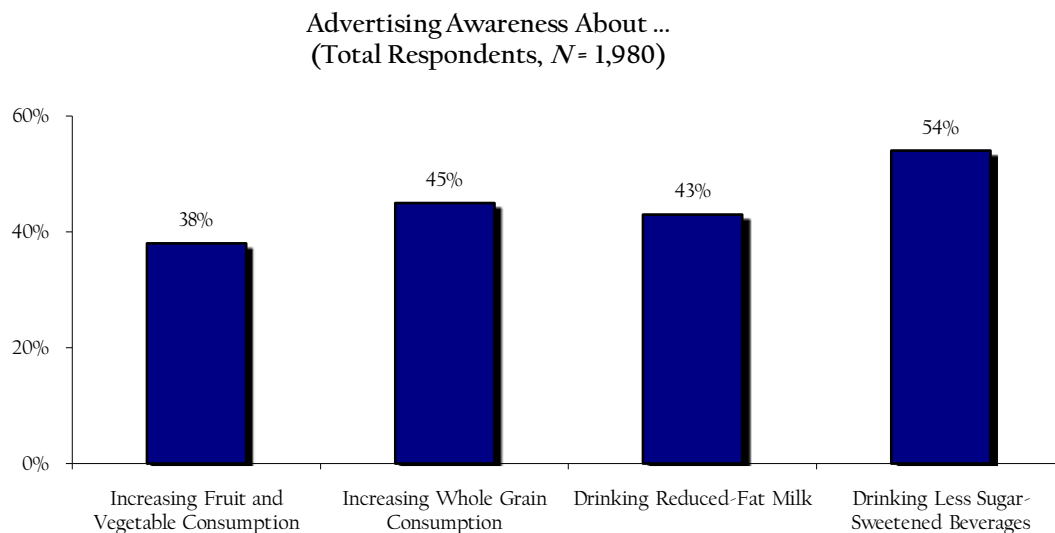
Exposure

Question 26a: Are you aware of any advertisements about increasing fruits and vegetables/increasing whole grains/drinking reduced-fat or low-fat milk/drinking less of sugar-sweetened beverages?

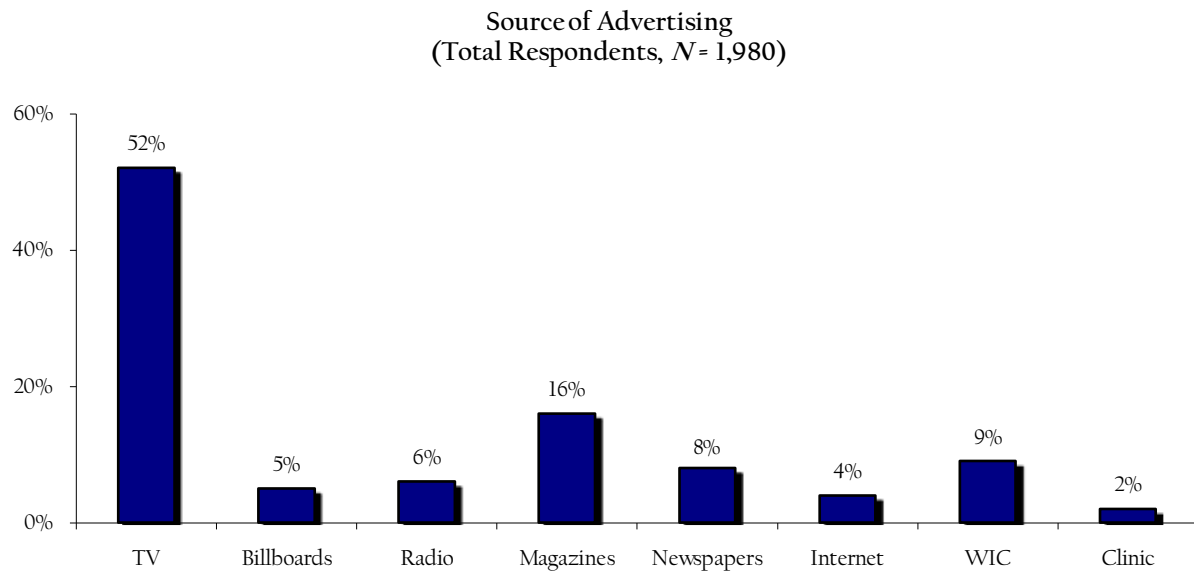
Question 26b: Where did you hear or see the message?

Question 27a: At the grocery store, have you seen any banners, posters, pamphlets, or special recipes about increasing fruits and vegetables/whole grains/drinking reduced-fat and low-fat milk?

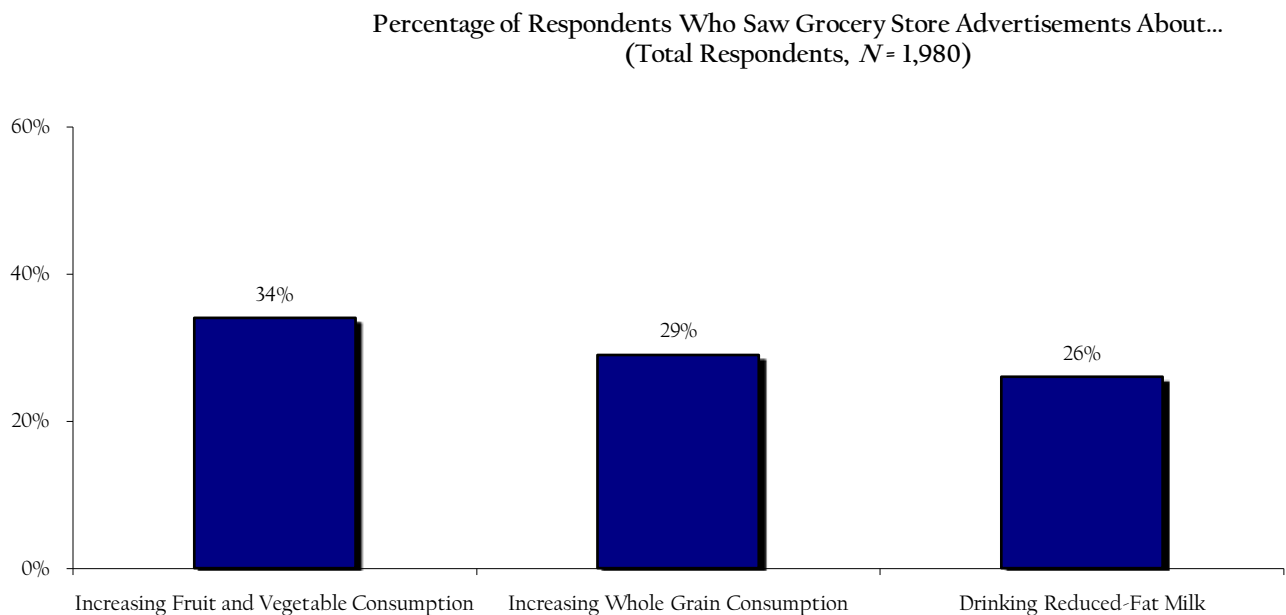
Generally speaking, just over a third of the respondents said that they were aware of advertisements about increasing fruit and vegetable consumption, while over half were aware of advertisements urging people to drink less of sugar-sweetened beverages.



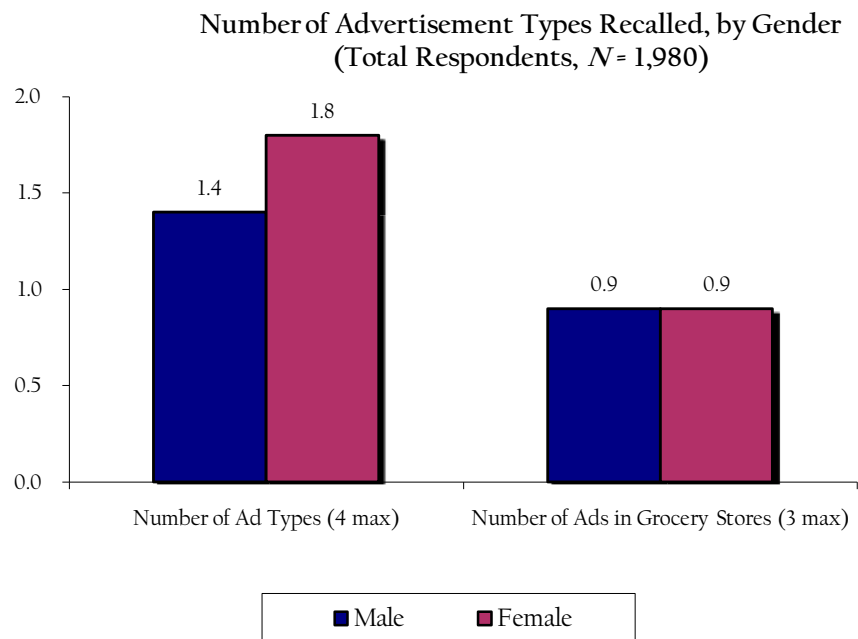
The vast majority of advertising that respondents could recall was television advertising.



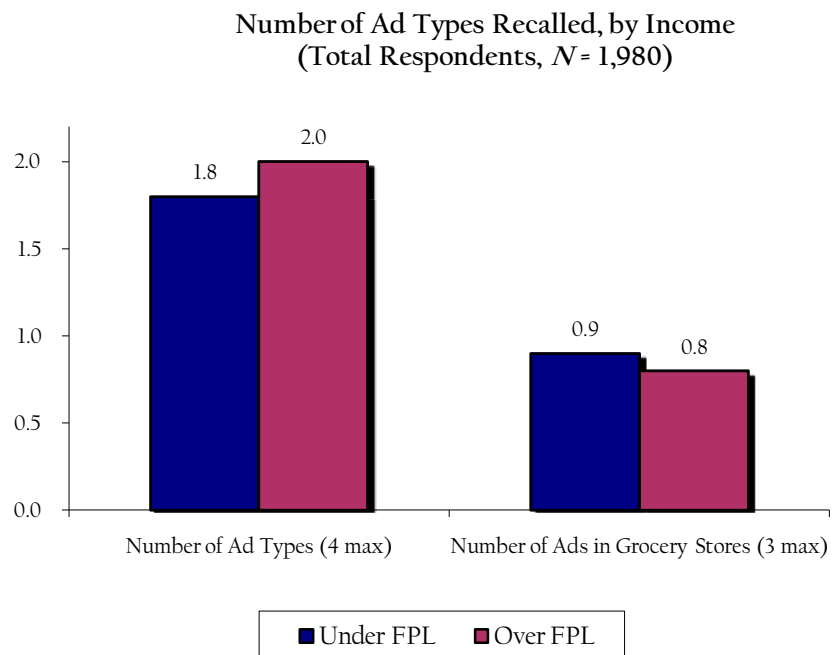
Again, about a third of respondents said they were aware of advertisements promoting fruit and vegetable consumption in grocery stores. Only a quarter could recall advertisements about drinking reduced-fat milk.



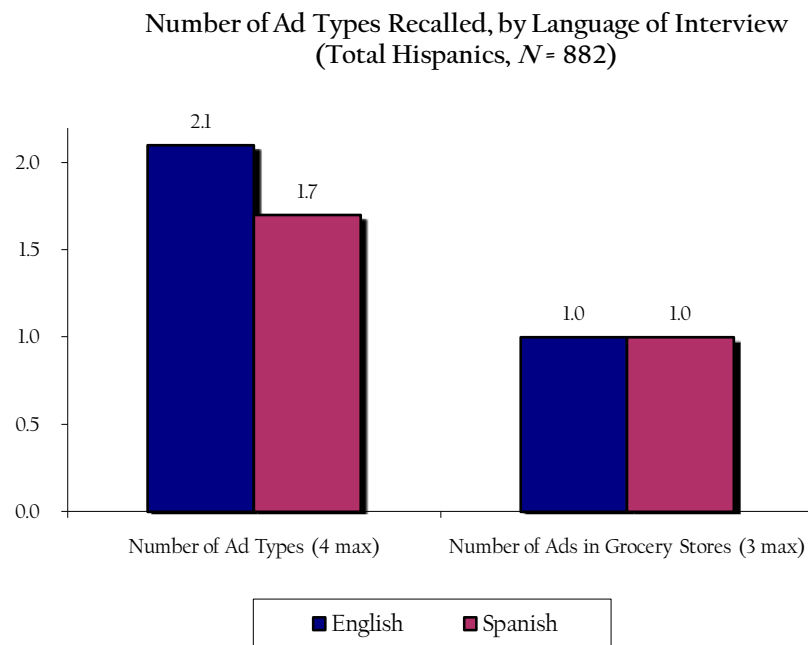
Females were more likely than males to recall advertisements overall.



Persons with incomes over the FPL recalled slightly more advertisements outside of grocery stores than did those with lower incomes.

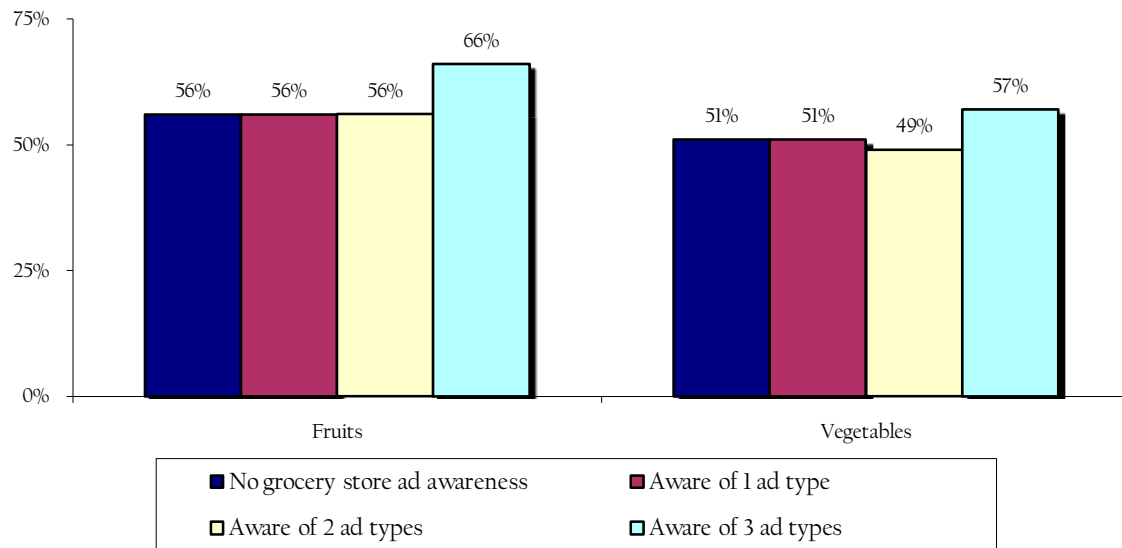


Hispanics who were interviewed in English were more likely than Hispanics interviewed in Spanish to recall advertisements outside of grocery stores.



There is a modest link between recalling advertisements and having children eat at least two kinds of fruits and vegetables per day, although the link is only apparent for those who recalled seeing at least three types of advertisements. There were no other significant relationships for advertisement awareness of fruit, vegetable, bread, or milk consumption.

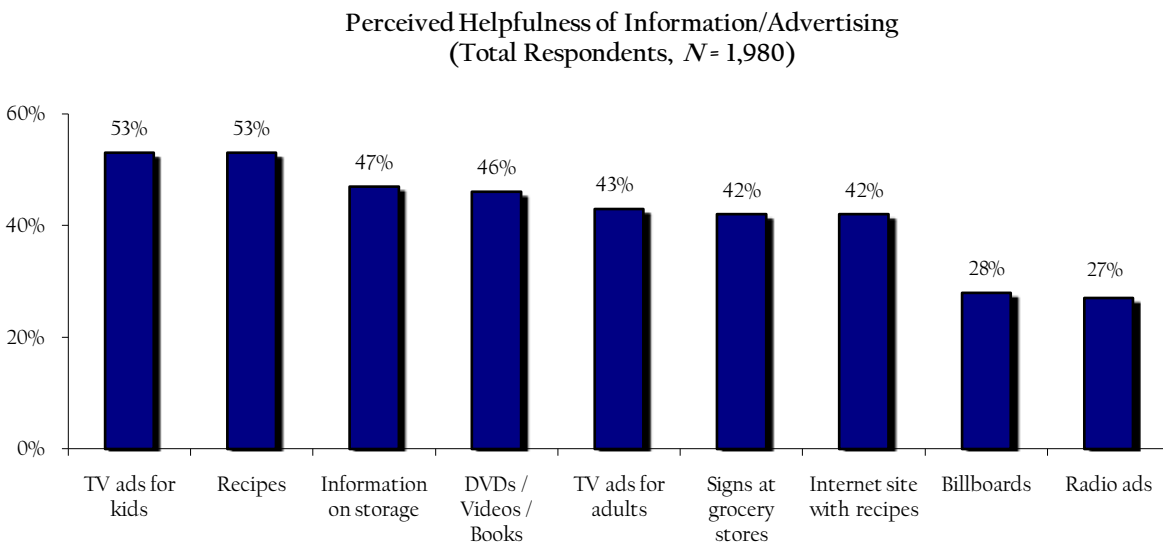
Percentages of Respondents Who Always Eat Two Fruits/Two Vegetables per Day, by Awareness/Number of Types of Grocery Store Advertisements Recalled
(Total Respondents, $N = 1,980$)



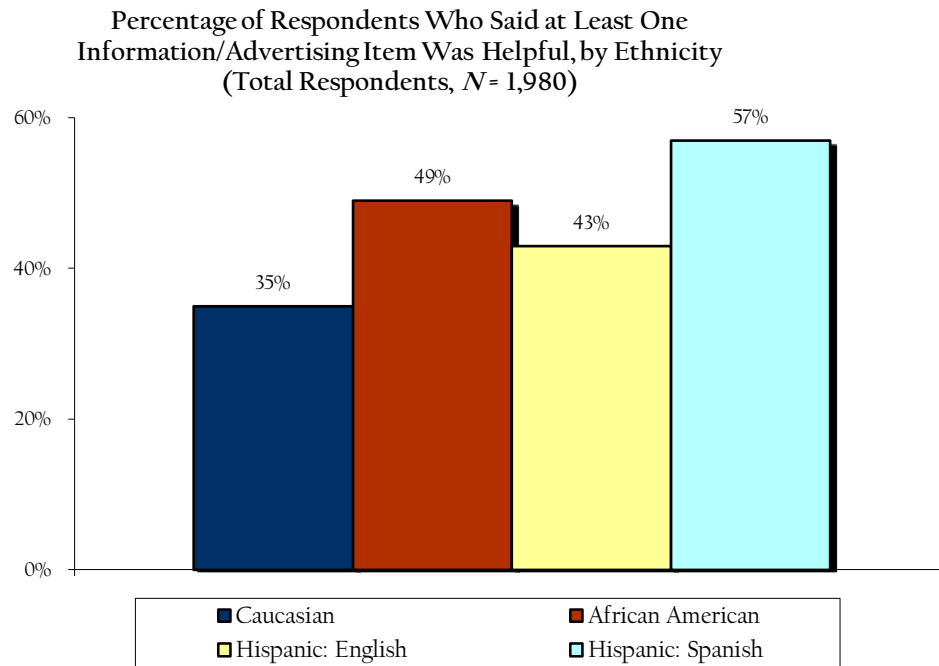
Helpfulness

Question 28a: How helpful would recipes/information on storing fruits and vegetables/DVDs, videos, and books/television advertisements for adults/television advertisements for kids/an Internet site with recipes/radio advertisements/billboards/signs at the grocery store be to help you eat more fruits and vegetables?

The survey tapped into whether different types of materials on fruits and vegetables would be helpful in increasing fruit and vegetable consumption. Overall, television advertisements for children and recipes were equally thought to be the most helpful in urging an increase in fruit and vegetable consumption.

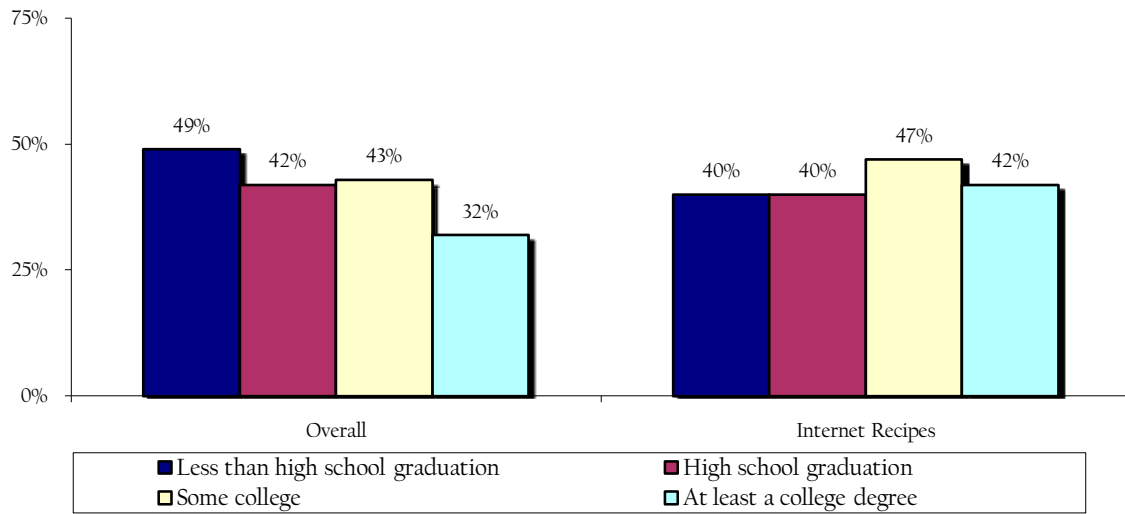


Overall, Hispanics interviewed in Spanish were the group most likely to say that anything would be helpful to them. Specifically, 57% of them said at least one particular item would help them increase their fruit and vegetable consumption.



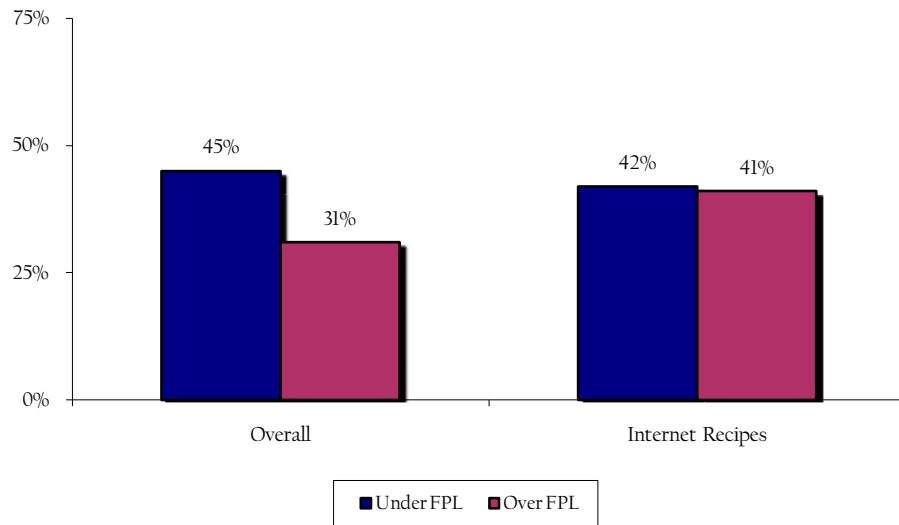
Those with less than a high school education were more likely than those with more formal education to say that at least one item would be helpful to them, while those with at least some college prioritized assistance via the Internet.

Perceived Overall Helpfulness and Helpfulness of Internet Recipes, by Education
(Total Respondents, $N = 1,980$)



Similar relationships were found with regard to income. Most other demographic variables were found not to bear on respondents' likelihood of saying that one type of intervention would be more helpful than another.

Perceived Overall Helpfulness and Helpfulness of Internet Recipes,
by Income (Total Respondents, $N = 1,980$)



Assistance

Participation in various government programs was measured, and its link to fruit and vegetable consumption was assessed.

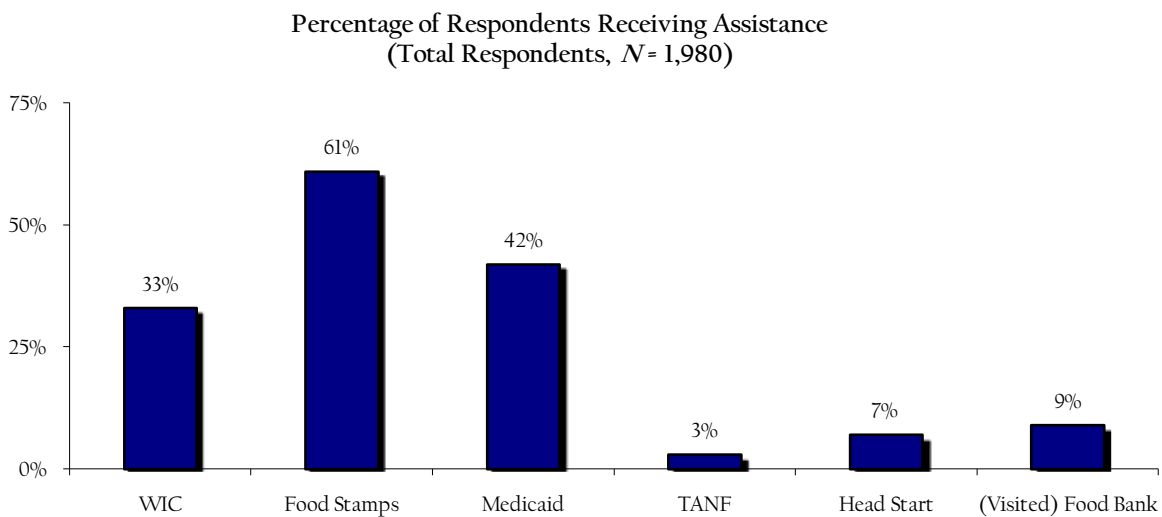
Assistance

Question 31: Are you or your child/children currently participating in WIC/Food Stamps/Medicaid/TANF/Head Start?

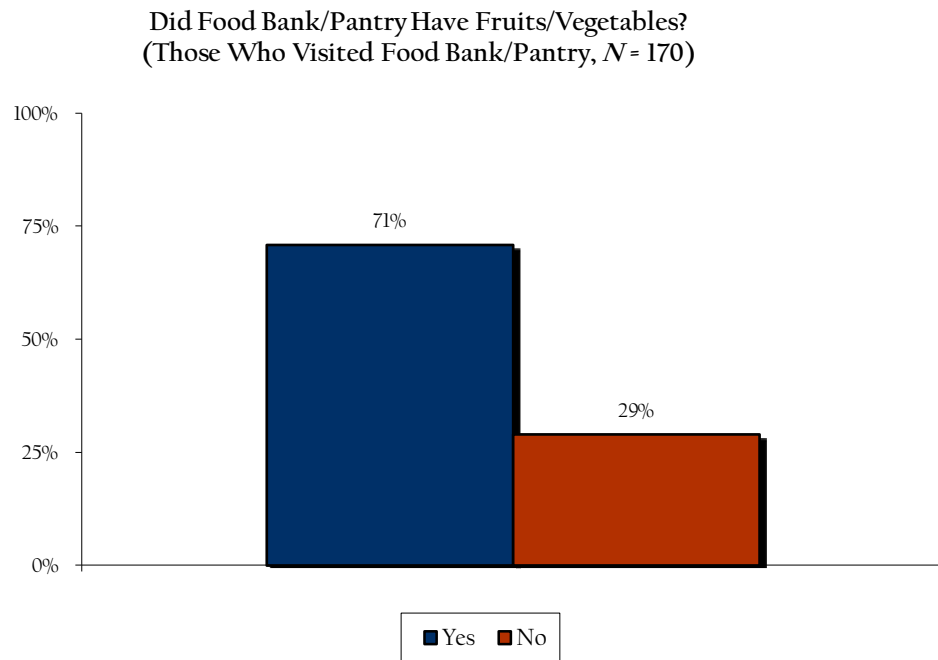
Question 32a: During the last year, have you visited a food bank or food pantry?

Question 32b: Were fruits and vegetables available from the food bank you visited?

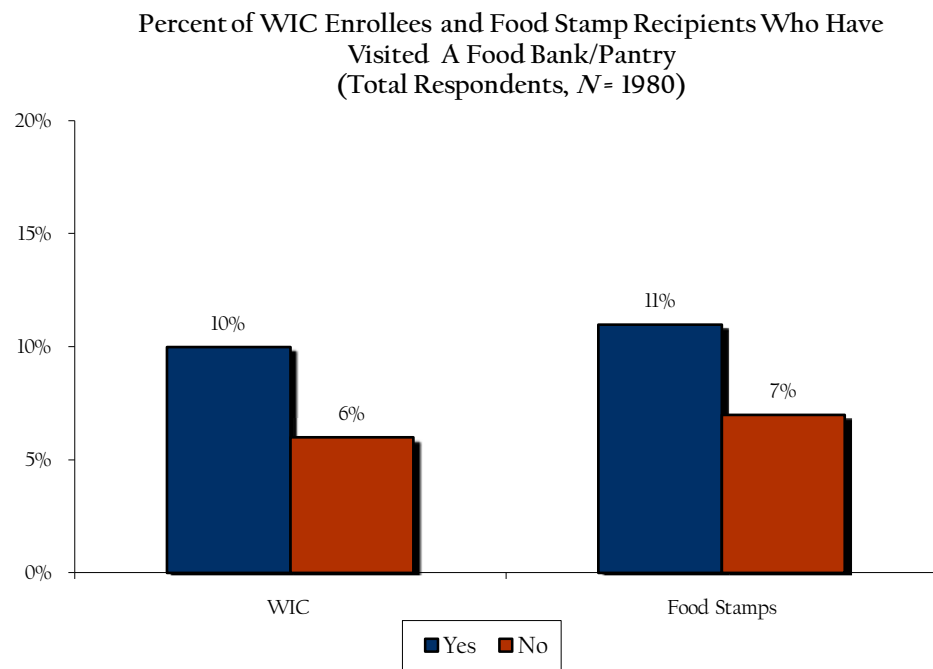
Sixty-one percent of respondents said they use food stamps, while a third said they are on WIC and 42% reported that they are on Medicaid.



Only 71% of respondents who had visited a food bank or food pantry said that it had fruits and vegetables.

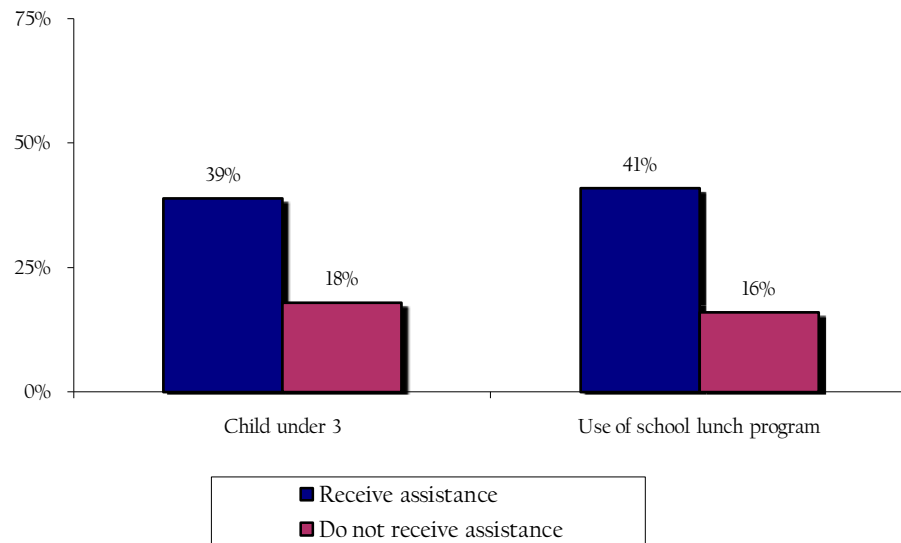


Nearly twice as many persons on WIC visited the food bank or food pantry than those not on WIC, with a similar difference found between those who receive food stamps and those who do not.

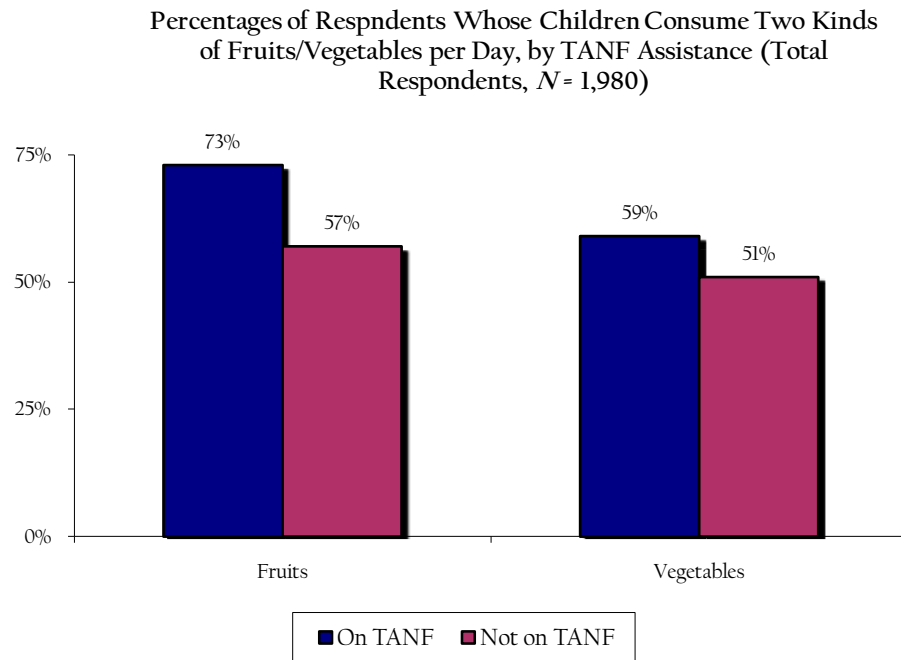


Those with children under the age of three are much more likely to be on assistance, as are those who utilize a free school lunch program.

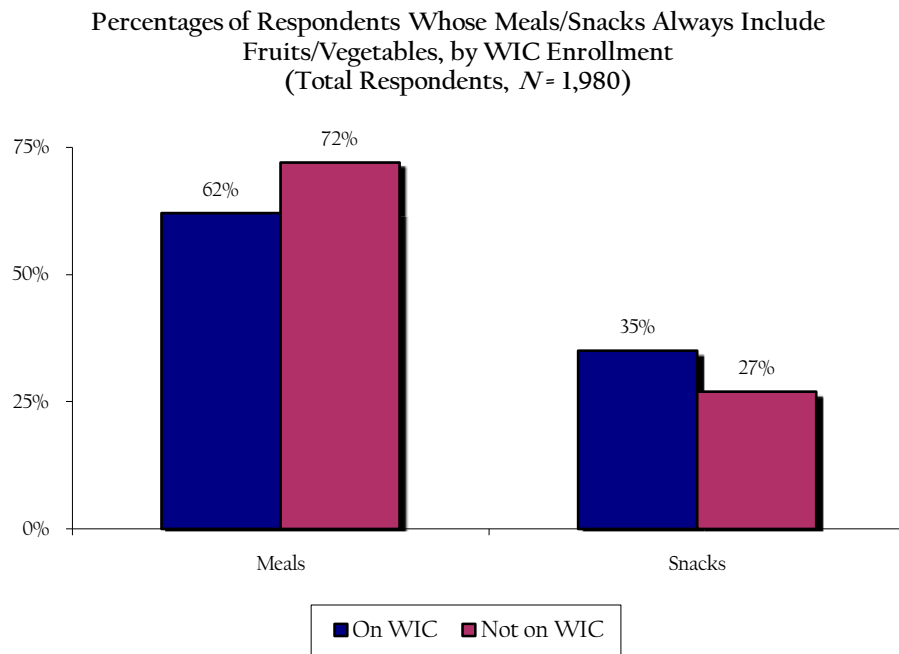
Percentage of Respondents Receiving Assistance, by Presence of Small Children in Household and Use of School Lunch Program
(Total Respondents, $N = 1,980$)



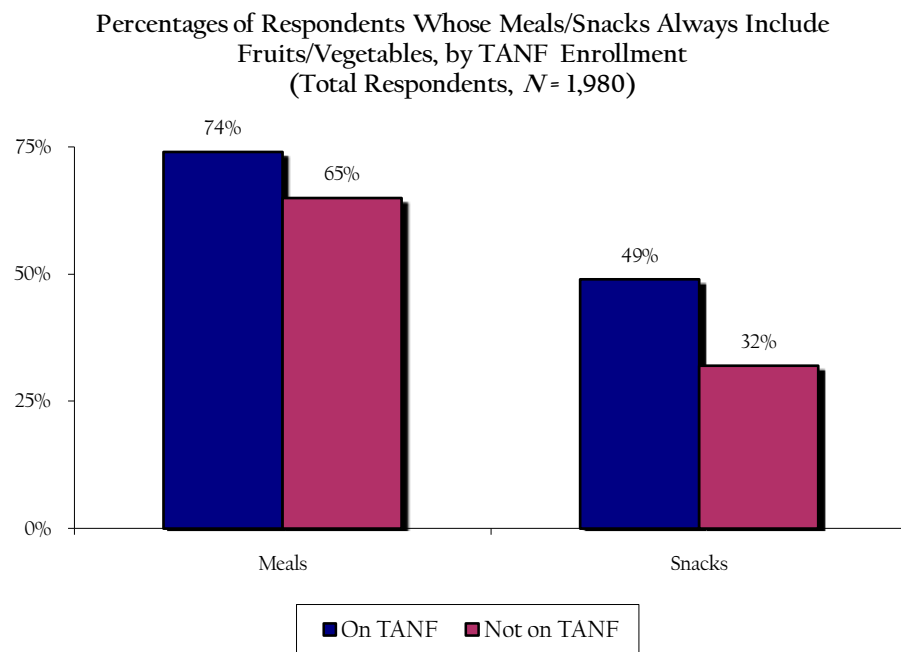
Those in TANF are much more likely to have their children consume at least two kinds of fruits and vegetables per day than are those not in TANF.



Those on WIC are less likely than those not on WIC to have fruits and vegetables as a part of every meal, although they are about equally more likely to provide fruits and vegetables during snacks.



Finally, those on TANF are much more likely than those not on TANF to say they provide a fruit or vegetable at every meal and every snack.



Parent Focus Group Findings



PARENT FOCUS GROUP FINDINGS

METHODOLOGY

The SNAP project team identified six sites across Texas for the locations of the 12 focus groups. These locations mirror the geographic and ethnic diversity of the state. Focus groups were conducted in both English and Spanish. The six sites and the number of focus groups at each site are outlined in Table 1. The demographic details about participants are outlined in Table 2.

Table 1: Focus Group Details

Location	Number of Groups
Austin	1
El Paso	2
Fort Worth	2
Houston	2
Rio Grande Valley	2
San Antonio	3

Table 2: Participant Demographic Details

	<i>N</i> = 112	Percentage
Gender		
Male	1	1
Female	111	99
Language		
English	85	76
Spanish	27	24
Ethnicity		
African American	11	10
Caucasian	18	16
Hispanic	78	70
Other	3	3
Refused to answer	2	2



PARTICIPANTS

Participants were recruited by market-research facilities and were paid for their time (approximately two hours). SOSM conducted a total of 12 focus groups and spoke with a total of 112 parents, all but one of whom were mothers. Focus group members were screened to ensure that their socioeconomic status mirrored that of the larger WIC population—that is, that their income was at or below 185% of the federal poverty level and that each of them was the primary caregiver of a child age 10 or under.

A survey distributed to participants at the end of the focus group sessions provided additional information regarding the group demographics, including the following information about those who completed the survey:¹

- Eighty-five percent (92) of these participants use the Internet.
- Eighty-four percent (92) of these participants stated that they visit a WIC website that provides information about fruits and vegetables.
- The majority of these participants (85) access the Internet at their homes.
- The majority of these participants receive services from WIC (83) and Food Stamps (56).
- Almost half of these participants (49) have children who participate in the school lunch or breakfast program.
- Of the 52 participants who receive WIC farmers' market vouchers, 38 indicated that they do in fact use them.

Lines of Inquiry

All focus groups were moderated by professional moderators from SOSM, who employed a consistent guide. Generally, the lines of inquiry focused on the following topics.

- General shopping and food preparation
- Perceptions of “healthy foods”
- Challenges to serving fruits, vegetables, and whole grains
- Field-testing materials

The variations to the guide included a change in the activity engaged in to ascertain what foods parents generally purchase and feed to their families. In the first few focus groups, parents were asked to pick foods from a photo sort. However, SOSM researchers determined that this exercise may limit discussion, so they altered the exercise to have parents write down three meals that they had served to their families in the past week. An additional exercise was incorporated into the focus groups, whereby parents were shown two loaves of bread—one with whole grain and one not—and were asked to indicate which one was the “healthy” bread.

¹ Not all focus group participants chose to complete the survey. The statistics presented reflect the responses of those who did complete the survey.



This exercise was intended as a tool for learning more about participants' knowledge of what constitutes a whole grain. (For full focus group guides, see Appendix C – Instruments)

All focus group discussions were recorded and transcribed verbatim. Transcripts and notes were read and organized thematically. An additional round of coding was then conducted to uncover deeper themes and nuances.

Note: Italicized text indicates participants' quotes transcribed verbatim. They are included to illustrate the findings and enhance their credibility.

Limits of Qualitative Research

While quantitative research answers the question “how many” and yields statistical information, qualitative research answers the questions “what,” “why,” and “how.” Qualitative research often yields insights into issues that should be quantified later. Qualitative findings from the interviews and focus groups were transcribed, categorically coded, and analyzed for content, themes, experiences, and opinions. Readers are cautioned to remember the limits of qualitative research: Findings should be considered directional, not statistically definitive.

Questionnaire Data

During the focus groups, participants also completed a questionnaire so that their experiences and knowledge could be quantified as well. The questionnaire followed lines of inquiry related to field-testing materials, Internet use, and SNAP services.

FOCUS GROUP FINDINGS

General Shopping and Food Preparation

For the icebreaker exercise, participants were asked to finish the sentence, “The biggest problem I face when planning meals for my family is_____.”

This question yielded robust data, since specific responses to the question provided unprompted insights into whether parents are aware of or struggle with the concept of providing healthy meals for their children. The responses also highlighted themes that were to remain at the center of conversation throughout the each focus group discussion. Respondents not only articulated the challenges and struggles they face in providing healthy foods to their families, but the anecdotes they shared provided additional validity to these everyday struggles. The expressed themes revealed participant concern with the following issues.

- Preparing multiple meals to satisfy various family members
- Knowing how to cook healthy foods
- Having time to cook
- Having a variety of recipes



- Pleasing picky eaters
- Managing dietary concerns caused by a health crisis such as obesity or diabetes

Many parents grapple with how best to feed their families within the realities of a budget, picky eaters, full-time jobs, and simply not knowing and understanding what a healthy option is.

And my problem is, one wants one thing, the other wants another, and I have two boys that don't eat vegetables. I don't even know how to present it to them, because they don't want them anyway.

The biggest challenge I face when planning meals is, I want her to be healthy, but I don't really know what's healthy. There are so many different articles about it, but they all contradict each other and I get confused.

Responses indicate that many parents are indeed aware of the need to serve healthy foods to their families but struggle to find ways to do it. The struggles reflected in the following responses from two focus group participants were echoed by many others in groups throughout the state.

... And my main concern is how to get them to eat vegetables. They don't eat vegetables. They don't like them.

I have three kids, 12, 10, and 6. And not too different than anybody else, it reverts to what are the kids going to eat, and is it healthy. My husband and I just got diagnosed with diabetes, and so now we need to figure out how we can control our diet and our blood sugars that way, and have smaller portion sizes. That's our new challenge.

Typical Meals and Snacks

Many parents perceive the meals they provide as well-balanced and healthy. Participants expressed their intention to provide healthy meals; however, their descriptions of the meals they serve indicated limited knowledge of what constitutes a healthy meal. Discrepancies between the intent to provide healthy meals for their families and the actuality of what they serve is an indicator of the limited knowledge participants have regarding cooking healthy foods and having a variety of recipes.

Sunday dinner and I have, like, an asterisk around that because that's the meal that I try to have more nutritious foods or items. For Sunday dinner we have baked chicken, green beans, mashed potatoes with brown gravy, and creamed corn. Throughout the rest of the week it's either takeout pizza, Ben Miller's, or Church's Chicken.



When I really cook, he's like, "You're the best mommy ever." So that's one thing I tell my friends. If you want to keep them grateful, feed them chicken nuggets all the time. And they're good for them, and they'll love them.

However, some parents did share some “tricks of the trade” about serving healthier foods to their families. They employ tactics such as “hiding” and substituting healthier foods when possible—for example, vegetables are hidden in spaghetti sauce and turkey sausage is substituted for pork or beef.

I like to buy the turkey dogs instead of the real hotdogs because my kids like them just as well with chips ...

Non-Hispanic parent groups tended to rely on foods such as frozen pizza, chicken nuggets, macaroni and cheese, spaghetti, and fish sticks, while Hispanic parents tended to rely heavily on traditional fare such as *caldo* (a soup or broth generally made with meat), stews, enchiladas, and tacos. There was little mention of fast-food restaurants among Hispanic participants, while members of the non-Hispanic focus groups frequently mentioned their reliance on meals from fast-food restaurants. One participant of mixed Anglo-Hispanic background aptly described differences between the Hispanic and non-Hispanic populaces with the following statement:

The American family is like hotdogs, hamburgers, whatever is easy, and the Mexican is, you have to get in the kitchen and cook.

Participants mentioned *caldo*, tacos, rice, meats, stews, chicken nuggets, Hamburger Helper, spaghetti, potatoes, pizza, and vegetables (green beans, baby carrots, tomatoes, and peas) as the most common foods they serve.

On the other hand, parents know when they are serving unhealthy snacks such as chips, soda, and cookies, and when they are serving healthier alternatives such as baby carrots, fruit, yogurt, and cheese sticks. Although traditional junk foods were frequently mentioned as snack items, parents also listed snacks that were truly healthy and not just perceived as such.

That's mostly where my kids get their fruits and vegetables are from snacks normally. When I cook stuff, I don't put a side of fruit or whatever. It's when they're snacking, they'll get grapes or apples or bananas of something like that.

My kids eat apples and oranges.

... Cottage cheese and fruit. Yeah, my children like them because I have a garden in the back, and they are growing cantaloupe and watermelon. They really like it because we go harvest it, and then they eat it from there. And yogurt. I try not to bring any chips or soda waters like potato chips and things like that. No, no, and the children in my house do not drink coke or anything.



I'm like bad ... I have chips and Doritos ... My daughter, she's still one, so she's not really into all that junky food.

Planning

Except with rare exceptions, most participants do not plan meals in advance. Many parents return home after a full day's work and consider cooking as another chore to be checked off the list.

... And then I kind of plan menus. Nobody else said that, so I feel weird saying that, but I plan menus for the week...

We do good, we'll plan for about two weeks, and then we just totally forget, and then it's like, "What are we having?"

However, those who do plan in advance spoke about purchasing sale items and then using those items in different meals throughout the week.

One of the things that makes me decide is, let's say that we went to the store and he saw these pork chops on sale, so he buys like a million pounds of pork chops. So it's like, guess what, we're having pork chops.

Thirty minutes or less, any longer and I can't help you. I mean, you know, I don't get home until 6:00 by the time you pick up from school and day care. And we do homework, and I'm trying to cook at the same time, and do baths, and go to bed. So it's got to be 30 minutes or less, something quick.

In each focus group, participants were divided between those who solicit family input for meal choices and those who do not. Those who do solicit family input ask their children because it is easier and there is some level of confidence that the food will be eaten. Those who do not solicit input indicated that their children will only ask for unhealthy foods. Additionally, some women indicated that they tailor meals not only to their children but to their husbands as well.

You asked me how do I plan? I walk her to the freezer and say, "What do you want to eat?" Because if I just cook it, she won't eat it, but if I let her pick it, it may be the same thing, but it's okay.



How Parents Were Taught to Cook

The vast majority of respondents said they were taught how to cook by their mothers, either through active participation or by watching, seeing, eating, and tasting the food over and over again during their formative years. A handful of participants indicated that they learned how to cook from asking friends, by trial and error, or from magazines. Only one participant indicated that she learned how to cook from an organization, which was WIC.

I called Grandma or called Mom and asked, "How do you fix this? What's the recipe for this?"

I learned just seeing my mom

I think everything I eat is what my mother or father used to cook.

This finding is noteworthy because it seemingly lays the foundation for participants' understanding the importance of modeling behavior for their children. However, many parents shared anecdotes about the negative food choices their children make without expressing the idea that they can change these choices.

We take nutrition classes because they're available, but it's hard when you go and get the WIC and the cereal that you get is not the cereal that my children will eat. If they do eat it, they add tons of sugar to it. The milk, they add the Nestlé Quik chocolate to it. The cheese, they don't eat it, they don't eat the cheese. The beans, they don't eat them. It's given to me, and the juices I get, they don't like it. They want Kool-Aid, or they want Coke.

When specifically asked about the influence of WIC or other organizations on their food choices, many parents spoke of learning healthy eating concepts such as choosing low-fat milk, appropriate serving sizes, the amount of fruits and vegetables to be served, and substituting turkey for beef. Conversely, participants mentioned that they do not learn recipes or preparation methods from WIC.

Not so much recipes, but they'll tell you, like, what's good to give them, as far as, like, what has iron and what has vitamin C and that good stuff.

I was on WIC for a while and you would learn basic nutrition, but not really how to prepare. Feed them fruits and vegetables, but don't hand them, like, a raw squash.

I am on WIC right now, but they don't really show you how to cook. They tell you that your kids need vegetables. Your kids need milk. They need protein.

Now, it's like the computers, and they [WIC] don't give you like, "This is a sample. Taste it" anymore.



When further prompted to discuss how they learn about new recipes, participants put forward a variety of sources, including cooking magazines (specifically *Kraft*, *Quick & Easy*, and *Southern Living*), searching the Internet for recipes, especially Crock-Pot recipes, watching cooking shows on stations such as the Food Channel, and taste-testing new recipes at supermarkets. These ideas generated a lot of excitement in the groups, with conversations erupting around the magazines and shows participants had in common and seemed to enjoy watching. A typical conversation is transcribed below. (Note: After for the first three utterances, it became impossible to determine which respondent was speaking. These respondents are not identified by number.)

Respondent 1: *I watch channel 47. It's the Food Channel. I love that.*

Moderator: *So you're watching the cooking shows. Anyone else? – Everyone's shaking their head.*

Respondent 2: *I have a husband that mainly watches that.*

Respondent: *That's my husband.*

Respondent: *You learn a lot from there. They come out with good recipes from that. Really, honestly.*

Respondent: *A lot of the times it's also healthy recipes, too, because it's more homemade.*

Respondent: *And it's herbs and spices, right? It's not dull, like plain. It's more flavored.*

School as an Influence

The vast majority of parents expressed disappointment, frustration, and other negative feelings regarding school lunches. Parents reported that many children come home from school hungry because the lunches are not adequate or are served too early in the day. Beyond the factors of quantity and time of day served, parents believe that the quality of the food is poor and that poor eating habits are compounded and perhaps initiated by the types of foods served in school cafeterias across Texas. Most parents indicated that their children did not like the food served at school.

I think it has a hugely negative influence on the kids—the way they do things at school. But if you think about it, five days a week for twelve years, they're eating crap. The way it's structured, and then of course they're influenced by all the kids around them. So I think as parents, it's our obligation to ultimately change our eating habits—kind of, like, prepare their food with more, you know, be more conscious about it, because the way the obesity rate is in kids now, and just the way society is nowadays ...



... one of [my children] who refuses to purchase her lunch at school because it's absolutely horrible. The other one, he purchases one to eat, but he's so hungry when he gets home because there's not enough.

Oh yeah, the meat is like cardboard.

My son says he eats at school, but I think he goes and buys like the sugary snacks or the chips, because he doesn't like the way the food tastes.

The few who did make positive comments regarding school lunches focused on the value these lunches had in introducing their children to more food choices.

For my son, it was really good. He never tried anything new and he started school this past February, and they have really good meals through Arlington. They have a special, I don't know, but he started eating more vegetables and different things.

When my oldest went to kindergarten, she branched out a lot more. She wouldn't eat hotdogs. She wouldn't eat hamburgers. We didn't eat a lot of that stuff anyway, but that's what they serve at school. She wouldn't eat ketchup, so she was more willing to try new things because she ate different things at school.

Children as Helpers in the Store

Most parents stated that they do not like to bring their children with them to the grocery store. The problem, as many parents pointed out, is that the grocery bill gets much higher when they bring children along and the children generally prefer to select foods that the parents do not want them to have. Parents who do bring their children shopping with them stated that they do so because they have no choice. Few parents spoke of bringing their children shopping with them as a means to educate them about healthy foods or the best value.

I don't have the patience. Taking four kids to the store is like, you might as well shoot yourself. I always have one to say, "Mom, could we just try this new thing?" Before you know it, you've got seven new things to try in your basket ...

I don't take mine. They want to start taking things, and grabbing things.

I take mine shopping with me because it teaches them this is how you do it, this is what it's going to cost. You're females, so you're going to be doing this not too long from now.



Perceptions of Healthy Foods

Most participants appeared to understand which foods are healthy and which are not. When asked specifically to share the healthiest foods they cook for their families, most respondents were quick to list healthy items such as fish, red meat, chicken, vegetables, lentils, cheese, baked fish, turkey, and fruits. However, several responses indicate that parents may not know how to prepare these foods in a healthy way, since parents described healthy foods prepared or served in an unhealthy fashion.

My children like strawberries but not by themselves. I have to put a little bit of cool whip or a little bit of sugar so they'll be a little bit more juicy and sweet, and they'll eat them.

My kids like salad too, but they just throw a bottle of ranch on it, and then the croutons, though. But at least they eat the salad, too.

And broccoli, with butter of course, so that takes the healthy out of it.

Chicken too. Like the chicken fried steak with the mashed potatoes and the green beans.

As mentioned previously, parents understand the importance of serving healthier foods to their children. When asked about the benefits of eating healthier foods, they mentioned “gives them more energy,” “not to turn overweight,” “diabetes,” “cholesterol,” and “they prevent health diseases.”

Milk Consumption

Most participants spoke of serving their children low-fat milk, which, according to their comments, means 2%, 1%, or fat-free milk, with the majority serving 2% milk. Parents spoke of learning from WIC or their pediatricians when it was time to switch from whole milk to a lower fat milk. The general consensus was that their children will drink the 2% milk but complain that skim milk is too watery.

Moderator: How many give 2%? And some of them are too little. How did you switch it, or did you make a switch?

Respondent 1: Well, they were gaining weight, so they switched it at WIC.

Respondent 2: I give them 2% because I always try to watch their fats, and that's why I give them 2%.

Respondent 3: The same, because of the fat.

Moderator: Was it hard to make an adjustment? Some are saying yes?



Respondent 4: *My husband and my daughter didn't like it at the beginning.*

Moderator: *How did you do it?*

Respondent 4: *They didn't have anything else to drink, so they had to drink that one, and I drink skim, and then they don't have theirs, and there's only mine. They don't drink it because they say it's just water.*

Whole Grain Consumption

The conversations around consumption of whole grains were robust, with participants readily identifying what they believe whole grains to be; acknowledging the importance of serving whole grains; sharing which whole-grain products they have tried; and the specific challenges they've faced with serving whole grains.

Respondents generally said they thought whole grains were a healthier option and listed the whole grains of which they were aware, including lentils, whole wheat pastas, cereals, oatmeal, rice, and bread. Some reportedly struggle with the taste of whole grains in products other than cereals and breads. The perceived cost of whole grain bread was mentioned several times.

Oh, no, that bread is so expensive.

It is a lot more expensive.

I have flour, but unfortunately it's just staying there because when I try to find foods, which I limit that, for instance like pork chops, when I try to find pork chops with the wheat flour, it doesn't get eaten. No, unfortunately, they won't eat it.

I tried the wheat pasta, and they didn't like it.

For my kids, mostly just the cereal.

There was discussion in several of the focus groups as to the merits of whole grains for the digestive system, and parents seemed quite in tune to their children's digestive issues.

I notice that my kid's bodies just function better. They're not constipated because a lot of times kids have that, and they tend to stay very regular ...

When shown two loaves of bread—one that was 100% whole wheat and another that had “whole wheat” on the label but was not 100% whole wheat—most participants indicated that the 100% whole wheat bread was the better option and the one that they purchased. Some participants did not know to look for “100% whole wheat flour” on the bread label to determine whether it is whole grain or not. A couple of participants were confused as to whether the “G” for General Mills means “whole grain.”



Many participants spoke about switching to whole grains as they try to make healthier food choices. These participants said they were motivated to change their behavior because of pressing or potential health concerns for their children, such as obesity, high cholesterol, diabetes, and in some cases issues of self-esteem related to weight.

Parents have more success introducing whole grains such as cereals, whole wheat breads, and buns, and have a harder time introducing whole-grain pasta and brown rice.

Like hamburger buns and hotdog buns, they're whole wheat now. And we get those, and they're good. I mean, she don't taste the difference.

I tried it and they didn't like it. I tried the wheat spaghetti, and they didn't like it.

Challenges to Serving Fruits, Vegetables, and Whole Grains

When asked to identify the challenges of serving healthier options such as fruits, vegetables, and whole grains to their families, participants readily identified the obstacles they face. Throughout the conversation, many parents expressed a strong desire to make positive changes and shared anecdotes about how they have attempted to incorporate healthier options into their families' food choices.

Time. Planning and preparation go hand in hand, as many of the challenges noted by the participants related to time. Few participants indicated that they plan a menu prior to the day they serve it. Some indicated that they make preparations in the morning, such as defrosting meat. However, the majority of participants spoke of getting to the end of the day and being faced with hungry children. Their solution is to quickly serve foods that are convenient and take little time to prepare, or to go out for fast food. Participants expressed a desire for "fast" and prepackaged options with fresh produce, and some spoke of the time commitment necessary to chop vegetables. Many participants shared the sense that it takes longer to prepare healthier foods.

It's easier sometimes. You're running all day, and then all of a sudden, you know you don't have time to make the big old meatloaf, mashed potatoes, the salad: "You know what? Time's running out. Let's just go buy Jack in the Box.

Groceries, versus going to McDonald's and getting the fries and the drink and a hot and spicy McChicken, you know, for each a dollar. Versus having to go to the grocery store, buying the groceries, going home to cook and then having to clean up, versus you going to McDonald's and getting everything cheaper and you don't have to clean.



Sometimes time too. Time, because there are so many days—I end up feeding them McDonald's all the time. I don't want to be like that. I don't.

Or white rice, fifteen minutes, versus brown rice, an hour.

Cost. Parents perceive healthier food options to be more costly. This issue elicited much discussion and was readily identified as a barrier by many participants, whether the perceived increased cost was associated with purchasing fresh produce, purchasing whole-grain breads, making more frequent trips to the store, or waste associated with the perceived short shelf life of fresh produce.

If I want grapes and they're \$2.49, I'm not buying it. If it's \$1.49 or \$1.79, I'll buy it.

You have to go to the grocery more often. With staples, rice and stuff, you only have to go like every two or three weeks. Like, fruits and vegetables have to be bought more often, and more trips to the store means more money.

Most participants prefer to serve fresh produce over either canned or frozen because they perceive fresh produce to be healthier. However, the associated storage requirement is a challenge that participants identified as cost prohibitive. Parents spoke of having good intentions and purchasing fresh vegetables and fruits, but then not using them in time and finding them spoiled. If they are not able to provide fresh produce, participants appear to be more willing to purchase frozen vegetables (as opposed to canned) than frozen or canned fruit.

... I think that, like, the fresh vegetables and all of that, they go bad. The fresh fruits, the storage, the shelf life ...

I think the canned is a little easier, but I'd rather have the frozen and fresh. It tastes better either frozen or fresh.

Some parents felt that it was worth the additional cost to serve healthier foods. Many participants shared strategies for providing healthier foods on a budget, including coupon clipping, going to stores that match the best prices, buying in bulk, serving fewer healthier meals, and purchasing fewer fresh fruits and vegetables.

I try to give my daughter natural vegetables, but I buy frozen foods for my husband and I because those are the ones my husband likes. But for my daughter, she's little and she's barely eating, so I buy her the natural.



It's like I'm trying to do two healthy meals in a week instead of wanting to do five or six. I have to do less because it's a lot more expensive, and I think that may be why a lot of people may not choose to go that route, because it's more expensive.

Taste. The taste of healthy foods, particularly vegetables, is something that parents struggle with. Most feel that fruits and whole-grain breads are palatable to their children, but when it comes to vegetables they appear to be at a loss for how to cook them. A few parents indicated that they themselves do not like many vegetables and therefore do not serve them to their children. As was mentioned earlier, many parents indicated that they tried to introduce whole-grain pastas and brown rice to their families, with mixed reactions. Few parents serve these whole-grain products.

My kids get off of their vegetables and they won't eat them, they'll just leave them. I think our dogs are healthier than everybody else because our dogs get the vegetables. They get the leftovers, and it's like rice and vegetables.

A few parents associated the challenges associated with taste to creating new habits and simply not being used to the taste of the healthier options.

I would say it's like getting used to the taste.

I guess trying to get used to not always getting, like, the pizzas and the hamburgers, getting more used to getting the healthier foods, getting out of your old habits.

Concerns and confusion about “health” foods, “healthy” foods, and “organic” foods. With further prompting, participants discussed their concerns and perceptions about brand-name versus generic products, pesticides and chemicals, and organic foods.

Quality of produce and brand-name versus generic products. Responses varied as to whether participants found the produce in their local shopping places to be fresh. Many spoke of going to different stores so that they could get the freshest produce. Some participants shop at corner vegetable markets, but very few indicated that they go to either a flea market or a farmers' market to purchase their produce when not motivated by the WIC vouchers. The perception that brand-name items are better and of higher quality than generic items was expressed in several of the focus groups.

The taste of the food, it's different, from expensive brands to cheap brands. Sometimes it is different. Like just simply cheese. The WIC cheese tastes different than Kraft cheese or Velveeta. It's way different, and it's more expensive.



“Organic.” Many participants perceived “healthier” to mean organic. There was much discussion about the prevalence of chemicals and pesticides in foods. It should be noted that focus groups were conducted during the summer of 2008, when the Federal Department of Agriculture issued a recall of Texas tomatoes due to an outbreak of disease and investigated whether the outbreak was due to contamination from Mexican produce.

The vegetables now, they have organic, and they’re more expensive. If you want the fruit to be healthier, it costs more.

The healthy organic stuff is very expensive; I don’t buy a lot, just a little of it. If the tomato is very expensive I buy less.

Lack of practical knowledge. Participants indicated that the challenge they face in preparing healthy foods and changing eating patterns within their families is simply that they do not know how to do this. They struggle with wanting to do better for their children yet lack the tools to actualize that desire. The conversation below exemplifies this struggle.

Respondent 1: *I think just knowledge how to do it. I mean, I know how to make a peanut butter and jelly sandwich; that’s simple. But, I don’t know a lot of times to do an alternative, easy ... and I’m sure they’re out there. I’m positive they’re out there. I just wasn’t raised that way. We had rice and all of that kind of stuff. Hamburger Helper was my mom’s specialty. So I think just lack of knowledge, of knowing what do to for me, how to do it.*

Respondent 2: *I want to say education. Because the biggest problem I hear with everyone is that they really want to do it, but life is life. You have to pay your bills, and you have to feed your family. That’s your priority, so everything else falls to the wayside. I feel like if we had more programs to educate women, to feed their families, cheaper, healthier, and quicker, because there’s a way, you just have to know. If you don’t know, you just don’t know. A lot of people are not offering that advice to women ... I feel like our government gives us a lot of stuff about not being healthy and not doing the healthy thing, but I don’t really think that they’re educating us to be healthy consumers. They’re not educating us to educate our children. They don’t even educate children in school; they do small things at school about nutrition. But, they really don’t break it down.*

Additionally, during the conversation regarding obesity, respondents pointed to portion size and food choices as areas with which they and their children struggle. Many parents shared stories of children who eat large portions, prefer “junk food,” and are overweight. Parents spoke of trying to model behavior for their children by decreasing the amount of snacks, pizza, and



hamburgers they purchase. However, a sense of powerlessness was present as an undercurrent throughout these conversations. Parents take the steps of encouraging their children to go outside, put snacks on higher shelves so children cannot reach them, and limit the amount of cookies or bread, but when met with an obstacle (such as a child saying he or she prefers to watch television), the parent does not know how to follow through and ensure that her child actually turns off the television and heads outside. Most parents know what needs to be done, yet in many of the groups parents shared that their children are overweight or struggling with diabetes and they are not effectively controlling the situation.

I find it harder for my kids. Only one is overweight. My four year old, he's overweight. He's supposed to be weighing 37 pounds, but he weighs 81 pounds, so he's a big boy ... and so it's hard for me to get him to go outside and play because he fights with me, saying he doesn't want to do it and he wants to watch TV... He loves going to the refrigerator and grabbing whatever, and if he can't get it, he puts a chair and he puts it in the pantry and he'll climb until he gets what he wants.

... My kids are constantly just sitting in front of the television, playing their video games and the computer and such, and I'm constantly telling them, "Let's go for a walk!" "We will in a minute, mom." And it's always later, later, later, so you know it just truly troubles me, because they're not as active as they were when they were in school.

I think portions are a big deal. My eight-year-old is very, he likes to eat ... I mean, when we do have McDonald's, they come out with this Mighty Kids meal, which is now two patties instead of one patty. Like CiCi's Pizza is very, very kid-promoted, and it's a buffet. My son feels like he needs to, you know, it's just so much out there. So those kinds of things just have to minimize because it's part of our life. I'm not going to deny it. My kids eat at McDonald's every so often, but I feel like the portions of it are just—I eat kids' meals, and I feel like that's enough for me. By my eight-year-old's portions are a big deal, just how much they're saying is for a kid.

How Children Learn About Nutrition

Children learn about nutrition either from their parents or in school. While some respondents indicated that they do not teach their children about nutrition and do not know if their children are learning about it, many other parents are aware that their children are learning about nutrition in school and stated that they themselves teach their children about nutrition. Coaches, teachers, classroom exercises, and school initiatives were mentioned as influences for teaching nutrition to children.

... And the coaches from school. The coaches, that's a preacher for them. They can even say, "We want us going to Subway now. No more Whataburger. No more fried chicken. No more things like that."



They give them hotdogs and pizza. That is true, but on the other hand, they also teach them. The Northside Independent School District has a monkey. It's an animal, and it says this is red and yellow. The red you cannot eat too much of it because you can only eat it once a week ...

The parents who do teach their children about nutrition may repeat what they've heard on commercials and may point out healthier options. Respondents struggling with a health issue such as diabetes mentioned that their children and grandchildren know which foods they (the parents and grandparents) can and cannot eat and will copy that behavior by eating the "permitted" foods and abstaining from the "forbidden" foods as well. Some parents spoke of a specific family member who leads by example and has a positive influence on the children's eating habits.

My husband. They'll see him eating some and they say, "Oh, Dad, I want some." They eat it and then they realize that even if it's not good, he's still going to eat it because that's what he chooses to eat But, regardless, when the girls see Daddy eating something, they're going to eat it too.

One parent said that she did not teach her children about nutrition because she did not know why certain foods are healthy.

I really don't take the time to tell them because, you know, I really don't know what, why carrots are good for you. I just know you have to eat them.

Farmers' Markets and Vouchers

Respondents who noticed and purposefully purchased locally grown produce were in a small minority. Fewer than half of the focus group participants had been to a farmers' market. Most of those who had been to one were motivated by the WIC vouchers they received. Almost all of the focus groups included at least one person who was aware of the concept of buying locally grown produce and who spoke about how the food may be "fresher" and have fewer pesticides. However, many were confused as to what "locally grown" means, with some participants thinking it meant "grown in the United States or Mexico." One participant thought it meant an HEB product over a brand product. Still others indicated that locally grown food was not a priority over the perceived additional cost of purchasing this produce. Many simply had never noticed or thought about where their food was grown.

I don't go out of my way to look for it, no. I go pick blackberries from a local grower once a year, but it's not really heavy on my mind.

Moderator: So, does your store mark what's locally grown?

Respondent 1: I haven't seen it.

Respondent 2: I don't think so.

Responded 3: I don't really pay attention.



I know my grapes come from Chile, because it says it on the little tag, but that's the only one I know about.

No respondents in Houston or McAllen remembered receiving vouchers from WIC. San Antonio and El Paso had the most voucher recipients, with nine at each location, indicating that they received vouchers. Some participants equated purchasing produce from a stand on the side of the highway with purchasing from a farmers' market. It was common for participants to shop at a farmers' markets because they received the vouchers and did not want to waste the money by not going.

Moderator: *How many of you have been to a farmers' market? If you've been to a farmers' market, raise your hand. Nine. Okay, nine people. And what prompted you to go to the farmers' market?*

Respondent: *Coupons.*

However, a few women did indicate they "wasted" their vouchers because the farmers' market was too inconvenient. Conversely, a few women indicated that they shop at the farmers' market regardless of whether they received vouchers or not. At least one respondent articulated that although she does not always use the vouchers, they did help her focus on the concept of fresh fruits and vegetables, and she tried to purchase fresh wherever possible.

Respondent: *I did a few times. Like the last two times, I was unable to use them because it goes back to time.*

Moderator: *How has it influenced?*

Respondent: *I think that's what got me started to shop at farmers' markets and stuff like that.*

Moderator: *What do you mean, "stuff like that?"*

Respondent: *Like the fresher vegetables and fresher fruits. That's what got me started into it, so there I started getting fresh fruits from Wal-Mart or wherever I could get them, as that was quicker for me and more convenient.*

Those who have shopped at farmers' markets spoke highly of the fresher and tastier produce, as well as the cheaper cost.

Besides not knowing where farmers' markets are located and when they operate, the top-of-mind barriers enumerated by respondents include the inconvenience of shopping at two places and going the extra distance to the farmers' market. When prompted further regarding distance, it became apparent that this is a prevalent barrier. Most respondents were interested in going to a farmers' market, at least to see what it offered, if distance were not an issue and there were a farmers' market no farther away from them than their grocery store. Reasons for



going to a farmers' market, if there were one no farther away than the grocery store, include fresher and cheaper food. A few respondents still would not be motivated to go to the farmers' market even if it were an equal distance away, citing the inconvenience of shopping at two places.

Obesity

The topic of obesity and related health concerns was discussed in each of the focus groups. In some groups the conversation turned to obesity as soon as questions regarding healthy choices were posed at the beginning of the session, indicating that this is a very real concern for parents. Regardless of when it came up in conversation or whether it came up spontaneously or after prompting by the moderator, parents were quick to join this discussion and to share their concerns about physical activity, portion size, self-esteem associated with weight, and specific related health concerns, such as diabetes, high cholesterol, and high blood pressure. Many parents are dealing with obesity or obesity-related health issues themselves and are working to incorporate better practices into the their families' eating habits, for themselves and for their children.

My concerns are the future health, how their life-long longevity, the teasing at school if they do become fat, you know, just their health period. I mean, people are dying younger and younger of heart disease and heart attacks, and stuff that could be prevented by just their health, yes.

I have a 12-year-old and seeing her deal with the self-esteem issues. She went from a women's size 10 into a women's size this past year. I was like, "Holy cow, that's bigger than me." And I'm very concerned.

Also the cholesterol, just of the pizza and the hamburgers. We had a lot of kids with the diabetes already, first graders, second graders.



Physical Activity: How Much Is Enough, and Is It Safe?

Concern about physical activity was mixed. Many parents expressed concern about their children's level of physical activity, while others expressed satisfaction in this regard. One parent indicated that she felt her children get physical activity by playing interactive video games like Wii. Likewise, responses were mixed regarding whether children have a safe place to play. Some parents are concerned about their neighborhoods, but others stated that their children have a safe place to play. The Houston focus group participants expressed more neighborhood safety concerns than participants in other areas. For the most part, parents indicated that if their young child is playing outside, they must be there to observe. Many parents who pay for organized activities, camps, or day care indicated that their young children partake in enough physical activity at these places. Some parents take their children to indoor playgrounds such as Chuck E. Cheese's or McDonald's so that they have a safe place to play. A couple of parents indicated that they were less than pleased with the level of physical activity offered in the schools and wanted their children to have more frequent, more rigorous activity at school.

When my daughter's outside, I'm out there with her. I don't let her go wander outside.

We go walk every night at 7:30, because there's a show that I watch. As soon as it's over we'll go walk at least for 45 minutes.

They're safe.

Field Test of Materials

Toward the end of each focus group session, the moderator introduced several materials to field-test with the parents in order to learn what may motivate them to try healthy alternative recipes and introduce healthier food options into their families' diets, and how they would like to receive this information. Participants ranked their responses to two commercials on the scales provided on a worksheet distributed by the moderator. Materials are discussed below in the order in which they were presented. Copies of each of the materials may be found in Appendix D – Focus Group Materials.



Website. Participants were provided with a colored printout of the home page of a website entitled championsforchange.net and were asked to share their top-of-mind impressions of the home page, as well as any additional information they would like to see on the website.

Parents generally responded well to the home page of the *Champions for Change* website and were quickly able to understand its purpose, which is to educate parents about healthier food choices. They expressed interest in the information they expected to find on the site. The colors were pleasing. A few participants indicated that they did not like the website home page because there were too many words on it. One person indicated that the picture contradicted the message because the family members on the home page are overweight.

I would do the Internet. As a matter of fact, I was looking at it and I was like, I'd click on the "My Kitchen" [tab] first, and come up with ideas. Because sometimes I feel like I run out of ideas ...

Respondents shared many ideas about preferred website content. The most common ideas had to do with recipes that are "realistic," have few ingredients, and are "practical, healthy and inexpensive"; and information on local resources, such as farmers' markets and "free and low-cost activities" to do with their children. Other ideas mentioned are listed below.

- Information about how to "realistically make some of these changes" and how to make "easy changes"
- Testimonials from other parents who have made changes and have information to share
- Information on pricing, specifically related to local comparison shopping
- A list of activities under the *Be Active* tab that families can participate in at low or no cost
- Nutritional information

Some respondents indicated that they visit various websites in search of easy, affordable menu options. Specific websites mentioned include kraft.com, recipe.com, familyfun.go.com, and the Texas Department of Agriculture's website at <http://www.agr.state.tx.us>. One parent mentioned a website with a tool that allows the user to input ingredients and then provides a recipe containing those ingredients. Other parents in her group appeared interested in this resource. While she could not recall the name of the specific website, a subsequent Internet search by researchers yielded recipematcher.com as a site that has this tool.

The majority of respondents indicated that they would visit a website such as championsforchange.net. Responses varied when participants were asked whether or not they would like to receive a weekly e-mail with recipes after signing up on such a website. Some participants thought this was a good idea, while others indicated the e-mail would get lost in their in-boxes.



Television Advertisement 1: Champions for Change, Mom in Kitchen. This short advertisement features a mother in her kitchen speaking about how she is in charge of her kitchen, including the food that goes in and out of it. She encourages the viewer to take charge and make healthy choices for her family.

The majority of participants responded positively to this advertisement. The participants saw the mother in the commercial as being “like us.” The concept of being in charge of one’s own kitchen and the mention of diabetes appealed to this audience. For some in the Hispanic community, the religious items in the picture made them feel that the mother in the video was “just like” them. When asked, the vast majority of participants said they found the advertisement to be either somewhat or very “catchy.” While most participants did not learn anything new, they were motivated by the advertisement to eat more fruits and vegetables.

You hear about it [diabetes], you know what is involved about it, but when you hear somebody else saying that, it’s like, I have to make the change, I need to.

1. How “catchy” is it?	Percentage of Respondents (<i>N</i> = 83)
Not catchy at all	5
Somewhat catchy	46
Very catchy	49
2. Did it offer a new idea or new information you did not know before?	
Yes	35
No	55
Unsure	10
3. How much does this television advertisement motivate you to eat more fruits and vegetables?	
Doesn’t motivate me	13
Might motivate me	36
Probably would motivate me to eat more fruits and vegetables	51



Television Advertisement 2: Champions for Change, Community Change.

This short advertisement features community members working to improve the food choices at their neighborhood grocery store and school and encouraging viewers to take action to ensure that there are healthier food options for their own families.

Responses to the Community Change advertisement were more varied than those to the advertisement with the mother in the kitchen. Some respondents were uncomfortable with the idea of acting as advocates, and others thought it was unrealistic to think that they could influence change at their children's schools. Two mothers recounted that they did attempt to influence change, one at her child's school (unsuccessfully) and one at her grocery store (successfully). However, respondents indicated that they learned new information from the advertisement that may motivate them to eat more fruits and vegetables.

I thought the second one was a little, I don't know, wishful thinking on some parts, because I don't know if anybody's going to go down and complain to the school. They're just going to go, "Okay whatever." It's regulated by the state.

1. How "catchy" is it?	Percentage of Respondents (N= 83)
Not catchy at all	7
Somewhat catchy	60
Very catchy	33
2. Did it offer a new idea or new information you did not know before?	
Yes	47
No	43
Unsure	10
3. How much does this TV advertisement motivate you to eat more fruits and vegetables?	
Doesn't motivate me	18
Might motivate me	41
Probably would motivate me to eat more fruits and vegetables	41



Cookbook: *Let's Cook with Fruits and Vegetables*. Without exception, in every focus group participants expressed enthusiasm for this cookbook.² Participants responded positively to the fact that the recipes are in English and in Spanish, the ingredients are simple and appear to not take a long time to prepare, nutritional information is provided, and the recipes are accompanied by pictures. A conversation typical of many focus group sessions follows.

Respondent 1: *Oh, look, some of that soupy pasta!*

Respondent 2: *Oh, all of this looks really tasty.*

Respondent 3: *Could we make copies of this one? Could we take it with us? Are you going to give it to us?*

Respondent 4: *Everything!*

Zobey Children's Activity book: *A Trip to Bugland*. Parents responded well to this activity book. They thought their children would be attracted to the character on the front cover and that they would want to prepare the recipes in the back of the book. Few of the participants were familiar with the booklet and indicated that they had not received it from WIC. One participant shared that she has a video with these characters and that her children "love it" and want to eat what the characters are eating on the video.

There are recipes in the book. They love little stuff like that. My kids will look back there and go, "Oh, I want to make that."

Respondent Suggestions

Respondents offered a variety of suggestions on how to motivate them and their children to include more healthy foods in their diets. The most frequent suggestions include changing school menus, increasing advertisements of health foods, and holding food demonstrations. Many parents suggested that change must include the schools. They feel their children are not offered a variety of healthy foods in the schools and that there is too much breaded and unhealthy food available to children at school.

Parents liked the commercials they were shown as part of the field test and lamented the fact that they don't see commercials like that very often. One mother articulated this theme with the statement, "You don't see a lot of billboards out there with fruits and vegetables. You see a lot of fast foods. Put more of the healthy stuff on the billboards." Parents suggested commercials on the channels that their children watch, such as Disney.

² The cookbooks almost became a distraction because once they were handed out, participants did not concentrate on the remainder of the focus group session, reviewing recipe after recipe instead. This issue was quickly addressed by assuring participants that they would receive the cookbook at the end of the focus group session. Since it was not initially anticipated that the cookbooks would be distributed after each focus group session, in the early sessions SOSM staff took the names and addresses of participants who wanted the cookbook and mailed each of them a thank-you note along with a cookbook. Members of focus groups that met later were given cookbooks at the end of the session.



Many respondents proposed taste tests or food demonstrations with healthier recipes as a viable means to introduce more fruits and vegetables into their diets. They liked the idea of seeing the final creation and being able to taste it to determine whether it is something their family would enjoy. As participants made this suggestion, the importance of simple recipes was again voiced.

As I said before, I cook in regards to dump it out of a box or a bag, and some of the neatest things that I've ended up trying were because the grocery store had that little display table. Let's cook it up in the skillet, here, try a sample. Try something like that, "Hey look, we're going to feature these three vegetables. These are three new recipes out of this."

Parents offered a variety of other suggestions, including limiting Food Stamp options to healthy foods; a website that offers printable coupons; testimonials from people who made the change from unhealthy to healthy living and the consequences they had suffered (such as diabetes) as a result of their previously unhealthy lifestyles; cooking activities with children; including children in the nutrition classes at WIC; and in general just having information available so that they can make better choices for their families.

It should be noted that in each of the focus groups, parents enjoyed the opportunity to share recipe ideas, strategies of how to get their children to eat more fruits and vegetables, as well as suggestions on ways to increase physical activity. As the suggestion of having testimonials may indicate, they enjoyed learning from other parents who face similar struggles. In one of the focus groups in Fort Worth, one conversation elicited much interest when one of the participants spoke of a ministry called Angel Food Ministries, which sells boxes of food for \$30.00. She informed the group of all that the ministry has to offer, and that they accept food stamps. This information was met with great interest by others in the group.³

³ Further research by SOSM yielded the website for the ministry at angelfoodministries.com.



Appendix A

Substantiating Reports

BEST PRACTICES RESEARCH

INTRODUCTION

The Texas State Nutrition Action Plan (SNAP), a collaborative partnership created to coordinate nutrition education messages around the state, hired SUMA/Orchard Social Marketing, Inc. (SOSM) to conduct best practices research on fruit and vegetable promotional campaigns and initiatives to help guide the development of a media campaign that will be launched in fiscal year 2009 under the leadership of the Texas Department of State Health Services Women, Infants and Children (WIC) program and Communications Division. The overarching goals of the Texas campaign are:

- to increase fruit and vegetable consumption among Texans,
- to increase awareness about the health benefits of fruits and vegetables,
- to increase awareness of community fruit and vegetable resources, and
- to identify and address barriers to eating more fruits and vegetables.

Researchers completed a detailed Internet search of materials from over 30 sources and conducted telephone interviews with program staff in two states identified as having best practice initiatives. The interviewees were:

- Dr. Nancy Chin, Associate Professor in the University of Rochester's Department of Community and Preventive Medicine and researcher for the Project Believe Nutrition Exercise Education Program; and
- Paul McConaughy, Coordinator of and Social Marketing Educator the Michigan Nutrition Network (MNN) at the Michigan State University Extension (MSUE) Network, and leader of the Grow Your Kids Program.

The researchers communicated via e-mail with Susan Pennel, Communications and Media Manager for the Network for a Healthy California's *Champions for Change* campaign.

The findings from this research suggest that increasing fruit and vegetable consumption is a nationwide goal and that many states have already initiated campaigns toward this end. Although efforts to increase fruit and vegetable consumption may be evident in most states, a few states (California, New York, Michigan, and Maine) stood out in the number, quality, and/or relevance of their initiatives. Presented below are findings related to the crucial components of these state campaigns, summaries of selected campaigns, campaigns to keep in mind for potential partnering opportunities, and detailed case studies of three campaigns that may have particular relevance to SNAP efforts. Although all of the programs are promising, most are still in the early stages of implementation, so evaluation data are limited. Two of the case studies, for *Champions for Change* and California Project LEAN, have completed campaign evaluations, and key findings for these programs are summarized. However the third case study, for *Grow Your*



Kids, is still in the formative phase, and future directions for this campaign are outlined in the Next Steps section.

KEY COMPONENTS OF CAMPAIGNS: HOW ARE COMMUNITIES EFFECTIVELY ADDRESSING THE ISSUE?

The campaigns identified as best practices in this report all encompass at least one of the following four key components.

- **The campaigns focus on empowerment, in addition to nutrition education.** Two of the campaigns that have received national attention focus on empowering parents to make healthy changes in addition to educating them about nutrition. The Project Believe Nutrition Exercise Education Program and the *Champions for Change* campaign focus on increasing mothers' sense of self-sufficiency through practical, real-life tips and strategies, rather than on nutrition education.
- **The campaigns follow a social marketing model rather than a traditional advertising format.** The social marketing model involves the creation of networks of multiple partnerships and public-private collaborations, grassroots efforts, and the use of multiple media channels. For example, Network for a Healthy California partners with almost 100 agencies at local levels. Additionally, California Project LEAN is a product of the partnership between the California Department of Health Services and the Public Health Institute.
- **The campaigns incorporate a school component.** By targeting children, campaigns are able to initiate healthy habits at a young age and encourage children to bring nutrition-focused messages home to their parents. In doing so, campaigns are eliminating a common barrier mothers face in incorporating more fruits and vegetables into their families' diets, which is that their children will not eat them. New York's *Eat Well Play Hard* campaign led nutrition-based efforts in schools and day care centers, such as establishing student gardens. Michigan's *Eat Healthy. Play Hard. Read More.* Family Bookbag program provides students with nutrition-focused books and activities to share with their families.
- **The campaigns promote local produce in order to help families keep costs down.** Not only do these efforts increase families' purchasing power in regard to fruits and vegetables, but they also increase community partnerships by drawing local growers into the campaign. Michigan's Garden Project encourages residents to grow their own fruits and vegetables, while *Select Michigan* and *California Grown* help shoppers identify locally grown produce



SUMMARY OF CAMPAIGNS AND INITIATIVES FEATURED IN THIS REPORT

California

- The *Champions for Change* campaign was developed by the Network for a Healthy California and is described in a detailed case summary later in the report.
- **California Project LEAN** is a joint effort by the California Department of Health Services and the Public Health Institute. It is described in a detailed case summary later in the report.
- The California WIC Program is developing several educational campaigns to support its **Healthy Eating and Active Living (HEAL)** project.¹ *Market to Meals* is the first campaign being developed and will promote home-cooked meals. The campaign will provide four lesson plans, with complementary resources, designed to help WIC participants develop skills for meal planning, smart shopping, and meal preparation. Materials are available in both English and Spanish and include posters, bulletin board display items, and handouts.
- In 2001, many of California's agricultural industries joined together to create the Buy California Marketing Agreement in an effort to increase the awareness and consumption of locally grown agricultural products through a marketing campaign based on the Californian identity.² The resulting campaign, *California Grown*, is a public-private partnership supported by the state and federal governments. The campaign's slogan ("Be Californian. Buy California Grown.") and logo (a vintage CA Grown license plate) identify the campaign with the consumers' California pride. *California Grown* provides the following services:
 - *California Grown Lift Kit* for retailers
 - Commercials, public service announcements, billboards, and newspaper ads
 - Classroom activities for teachers
 - Recipes featuring locally grown products developed by the state's top chefs and complementary California-produced wine list
- The **California School Garden Network (CSGN)** works to create and sustain school gardens in an effort to enhance students' academic achievement, health, environmental stewardship, and community and social development.³ CSGN partners with a variety of state agencies, schools, private companies, and nonprofit organizations and provides support and resources throughout the state.

Resources include:

- Printed guides for starting and sustaining school gardens
- A workbook designed around the implementation process



- An online guide that offers suggestions on getting approval for, creating, learning in, and sustaining the garden
 - A Web site with regional contacts and trainings
- The **California Fresh Start** program, implemented by the California Department of Education, provides \$18.2 million in funding for school breakfast programs to purchase and offer fresh fruits and vegetables to students.⁴ Participating schools may determine the best method for promoting consumption of fruits and vegetables at breakfast. Suggestions include:
- Classroom breakfast that includes one or two servings of fruits or vegetables
 - Grab-and-go breakfasts with one or two servings of fruits or vegetables
 - Fruit and vegetable bars available in the cafeteria

New York

- **Project Believe** is a community-wide initiative led by the University of Rochester Medical Center with the goal of making Rochester America's healthiest community by 2020.⁵ The initiative was introduced in October 2000 and consists of five programs: the Nutrition Exercise Education Program; RUNFit (Rochester Urban Nutrition and Fitness Initiative); COPE/Healthy Children: Creating Opportunities for Personal/Parent Empowerment; Train to Sustain: A University Community Partnership to Promote Healthy Living; and Fostering Resilience Among Hispanic Children in the Rochester City School District.

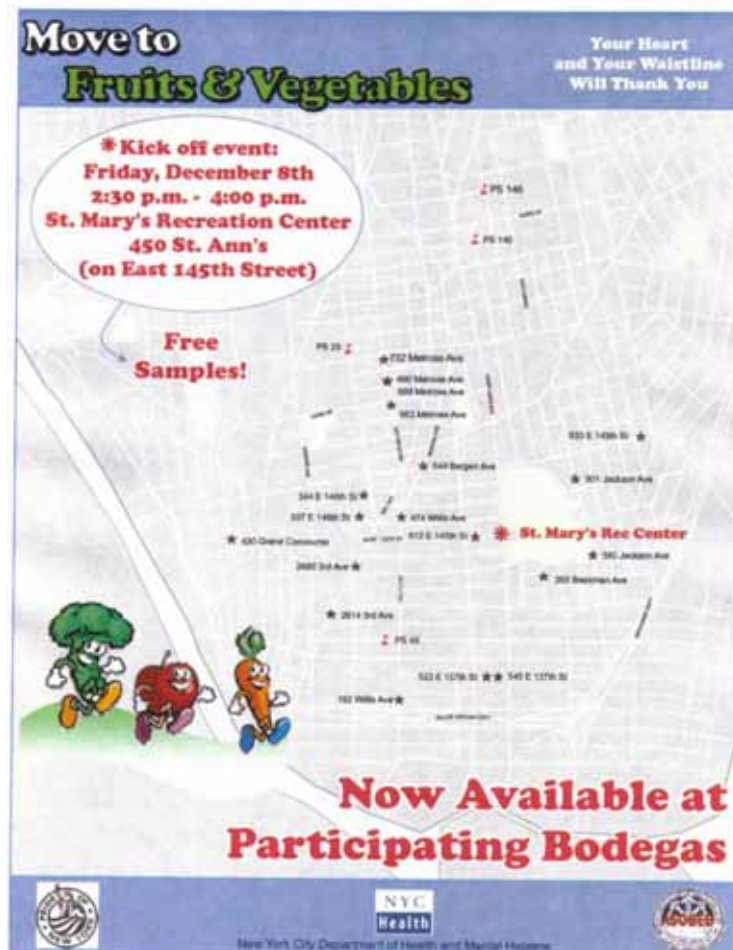
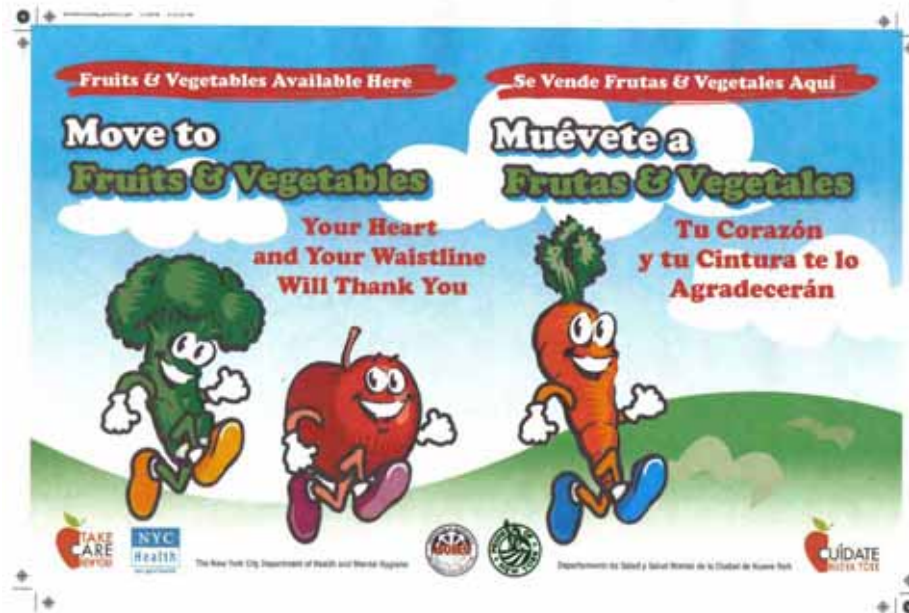
Dr. Nancy Chin explained that the Nutrition Exercise Education Program partners with FoodLink, a local food bank, which sponsors Kids' Cafés. Medical and public health students attend Kids' Cafés and eat with the kids while talking to them about what they are eating and explaining how to choose healthier options. They found this tactic to be more effective than teaching a curriculum because the kids were more likely to pay attention and try new foods with the students' encouragement.

In a telephone interview completed on June 25, 2008, Dr. Chin explained that she and her team have been conducting home visits to determine the barriers families face in achieving healthier lifestyles. Her findings suggest that parents are overwhelmed (e.g., by work responsibilities, keeping their children safe) and face comorbid problems (e.g., poverty, violence, illness). Because parents demonstrate sufficient dietary knowledge, Dr. Chin suggests that the barriers families face are not due to a lack of nutrition education, but rather to the complications of putting their understanding into practice. She identifies high cost and unavailability as the primary barriers to healthier eating. In order to improve people's health, she proposes policy changes that provide families with more community support, such as subsidized farmers' markets and transportation. Dr. Chin further pointed out that many of the school-based interventions geared toward preventing obesity have been ineffective because they lacked parental components.



- The *Move to Fruits and Vegetables* campaign was piloted in 2007 in a joint effort by the New York Health Department's Healthy Bodegas Initiative, the New York State Department of Agriculture and Markets, and the Bodega Association of the United States.⁶ The campaign provides free local produce to bodegas in low-income neighborhoods around the city and incorporates marketing and promotional tools to raise awareness of the campaign and promote healthy eating. The Health Department conducted outreach and education in schools, day care centers, and WIC centers.





A.1.6



- The New York City **Green Carts** initiative, signed into effect on March 13, 2008, established 1,000 permits for Green Carts, which are food stands permitted to sell only fresh fruits and vegetables.⁷ The ultimate goal is to increase the availability of these foods. The carts will be placed in designated areas that have low fruit and vegetable consumption rates.
- *Eat Well Play Hard*, a national campaign implemented by the New York State Health Department to help prevent childhood obesity and reduce long-term risks for chronic disease, makes use of three core strategies: increase consumption of fruits and vegetables; increase consumption of 1% or fat-free milk; and increase physical activity.⁸ The program initiated ten community projects with a dual purpose: first, to conduct an extensive assessment of the existing resources, programs, and services in the target community; and second, to form a community partnership with broad representation from organizations including WIC, emergency food relief organizations sponsored by the Hunger Prevention and Nutrition Assistance Program (e.g., food banks), child care centers sponsored by the Child and Adult Care Food Program, and the general community. Some of the best practices from participating counties include:
 - providing food demonstrations at farmers' markets,
 - community garden projects (e.g., establishing gardens at day care centers), and
 - establishing farmers' markets at WIC locations and malls.
- The **Activ8Kids!** New York State School Nutrition and Physical Activity Best Practices Toolkit was developed by the New York State Departments of Health and Education and launched in June 2005.⁹ The program's goal is to instill in children before the age of 8 a daily regimen that includes:
 - consuming at least 5 fruits and vegetables,
 - engaging in at least 1 hour of physical activity, and
 - reducing TV and video game time to under 2 hours.

The toolkit can be found at
<http://www.nyhealth.gov/prevention/obesity/activ8kids/toolkit/docs/toolkit.pdf>.

Michigan

- The ***Grow Your Kids With Fruits and Vegetables*** campaign was created by MSUE and is described in a detailed case summary later in this report.
- The Michigan State Nutrition Action Plan (MISNAP) Committee, the MNN, the Michigan Department of Community Health – WIC Division, and the Michigan Department of Community Health – Division of Chronic Disease and Injury Control are sponsoring the **Choices: Moving From Quantity to Quality** conference August



12–13, 2008. The conference is open to health professionals, nutrition educators, school food service professionals, child care providers, food pantry/bank staff, and consumers, among others. The conference will focus on increasing availability of and access to healthy, local food, as well as providing opportunities for collaborating with MISNAP partners.

- The Michigan Department of Community Health sponsors several initiatives under their Fruit and Vegetable Nutrition program.¹⁰
 - The **Garden Project**¹¹: The Greater Lansing Food Bank helps home and community gardeners grow and preserve their own vegetables by providing seeds, plants, information, and a tool-lending library to registered gardeners. The Garden Project's Gleaning Program harvests surplus produce from area farms and distributes it to low-income individuals and agencies that serve those in need.
 - The **Eat Healthy. Play Hard. Read More. Family Bookbag** is an educational resource for grades K–2 that encourages students and their families to eat more fruits and vegetables. The bag includes¹²:
 - Educator's Guide – assists the Family Bookbag coordinator with setting up the program
 - Parent letter – explains the bookbag to parents
 - Five children's books – provide positive food and physical activity messages
 - Family tip sheet – information on eating healthy, being active, and reading with children
 - Recipe card set – set of 8 family-friendly recipe cards
 - Yours to Keep Bag – plastic bags that children are allowed to keep
 - One of the few programs with evaluative data was created by the **Michigan Nutrition Network (MNN)** at MSUE, which fosters multidisciplinary, community-based, public–private collaboration aimed at increasing fruit and vegetable consumption and physical activity. In 1998, MNN piloted the *Eat Healthy. Your Kids Are Watching* campaign with the goal of discovering how to combine public and private resources to deliver nutrition education messages to a wide audience.¹³ MNN conducted three evaluative focus groups with 27 participants and a telephone survey with 800 respondents. The evaluation data revealed that the following:
 - The *Eat Healthy* theme was well-liked and understood.
 - Billboards and TV ads performed well.
 - School lunch menus were the best tool for reaching the target population.
 - People wanted recipes, meal planning guides, instruction in meal preparation, and “best buy” information.



- **Mixed Greens**, in conjunction with the Blandford Nature Center, invites children and the community to connect to the land, to food, and to their surroundings through hands-on experiences, such as gardening, that lead to sustainable and healthy choices.¹⁴ The program offers field trip and day camp opportunities for children.
- The ***Select Michigan*** campaign, sponsored by the Michigan Department of Agriculture, is a consumer education initiative aimed at helping shoppers easily identify and purchase food products grown, processed, or manufactured in Michigan.¹⁵

Select Michigan uses eye-catching point-of-sale materials, including stickers, posters, banners and display cards, radio, in-store tastings, and print articles to promote a variety of Michigan products, the majority of which are fruits and vegetables.

In 2003, trended case sales data received from the supermarkets indicated that the promotions increased sales of fruits and vegetables by an average of 111% over a base period. In 2004, the dollar increase for products promoted by *Select Michigan* represented an additional 8.6% increase in dollar sales and an additional 18.9% increase in unit sales from 2003 to 2004. Forty-one percent of the growers received price premiums and sold more products because of the initiative.

Maine

- The **Veggies for ME!** program was designed by the University of Southern Maine Muskie School, the Maine WIC Nutrition Program, and the University of Maine Cooperative Extension to promote vegetable consumption among WIC participants and their families.¹⁶ During a one-year program, WIC counselors addressed four topics at three WIC agencies during regularly scheduled visits with mothers. The topics were (1) food resource management, (2) vegetable cooking and preparation techniques, (3) feeding relationships, and (4) exploring seasonality and variety in vegetables. A telephone survey was conducted with 400 WIC clients, and the pilot evaluation showed the following results.
 - Major Barriers to Vegetable Consumption
 - Cost
 - Limited preparation skills
 - Inability to manage family likes/dislikes
 - Low familiarity with a variety of vegetables
 - Effectiveness¹⁷
 - Fifty-eight percent of clients have been making efforts to increase their vegetable intake.



- Fifty-two percent of clients indicated that knowing how to prepare vegetables would help them serve vegetables more often.
- Participant responses indicated that the program should be continued.

NATIONAL CAMPAIGNS THAT MAY OFFER PARTNERING OPPORTUNITIES

The following two programs are noteworthy because they have been implemented on the national level and offer unique resources relevant to SNAP efforts.

- **Body & Soul: A Celebration of Healthy Eating & Living** is a health program created for African-American churches,¹⁸ developed in a collaborative effort by the American Cancer Society, the University of North Carolina, the University of Michigan, and the National Cancer Institute. It has been used in churches around the country for ten years.¹⁹ Successful programs have been established in California, Delaware, Georgia, North Carolina, and Virginia. The program's central goal is to encourage church members to eat fruits and vegetables daily in an effort to take care of their bodies as well as their spirits. In order to achieve this goal, Body & Soul combines pastoral leadership, educational activities, a church environment supportive of healthy eating, and peer counseling. The program was created because African-Americans are at greatest risk for the majority of diet-related diseases and the church plays an influential role in the African-American community.
- **The Fruits & Veggies – More Matters** initiative has replaced the “5 A Day” message for promoting fruit and vegetable consumption.²⁰ Developed by the Produce for Better Health Foundation, the campaign offers expert cooking advice, nutrition information, and shopping tips.²¹ Its Web site (<http://www.fruitsandveggiesmorematters.org/>) provides these resources along with the Mom2Mom online community, which allows mothers to exchange questions and advice. In order to get kids involved, the campaign has an interactive Web site geared specifically toward children (<http://www.foodchamps.org/>) that includes games, coloring sheets, recipes, and activity sheets. The *Explore the World With Fruits and Vegetables* booklet provides suggestions and resources for nutrition and education professionals working to increase fruit and vegetable consumption among children and their families.²²



Detailed Case Summary of the Network for a Healthy California's *Champions for Change* Campaign

Organization Summary

The California Public Health Department's Network for a Healthy California program, established in 1996, aims to create innovative partnerships that empower low-income Californians to increase fruit and vegetable consumption, physical activity, and food security.²³ Network programs are targeted at Food-Stamp-eligible populations and other households with incomes at or below 185% of the Federal poverty level.

The Network represents a statewide movement of local, state, and national partners collectively working toward improving the health status of low-income Californians by facilitating behavior change in homes, schools, work sites, and communities. There are 11 Regional Nutrition Networks.

The Network works with almost 100 local agencies in a variety of different community settings, including school districts, local health departments, county education offices, public colleges and universities, Indian tribal organizations, city governments, First Five Commissions, cooperative extension agencies, and sister programs within the California Department of Public Health, park and recreation departments, and nonprofit organizations. Among the Network's key partners are the American Cancer Society, the California Department of Education, the California Department of Social Services, the Center for Civic Partnerships, the Produce for Better Health Foundation, the University of California Davis Cooperative Extension, and Western Growers.

In addition to the *Champions for Change* campaign, the Network sponsors several other campaigns aimed at promoting fruit and vegetable consumption and physical activity, including the Be Active! Worksite Program, the Retail Program, Harvest of the Month, Power Play!, and interventions for special populations, including Latinos and African-Americans. Additionally, the Network contracts with the California Association of Food Banks to conduct Food Stamp outreach.

The Network provides the following services:

- Community interventions
- Staff support, planning, and administration, and resource development for statewide public-private partnerships
- Intervention research and evaluation
- Media and supermarket interventions
- Special projects to promote change within USDA parameters
- Training and technical assistance to Network grantees and local incentive awardees



Campaign Summary

In 2006, to inform the development of the *Champions for Change* campaign, the Network launched a grassroots pilot project aimed at promoting healthy eating and physical activity among 575,000 low-income households in five counties.²⁴ The Network tested a direct mailer that included a DVD, a series of mass media campaign concepts for television advertising, and a series of brand identity concepts (logos and slogans) developed specifically for the Network.²⁵ The major findings from the pilot are listed below.

- Respondents had positive reactions to the direct mailer.
- Respondents liked seeing real mothers representing different racial/ethnic backgrounds and sharing their personal stories and tips.
- The “ownership” aspect of the campaign was more effective than others in instilling a sense of self-sufficiency regarding individual and community change.
- Low-income mothers demonstrated a strong preference for female voice-overs.
- The “Champions for Change” slogan was the best fit with the campaign concepts.

In 2007, the Network launched the *Champions for Change* campaign. The campaign targets parents, particularly mothers, by emphasizing their “ownership” of the ability to make changes in their families’ lives as well as in their communities.²⁶ The campaign revolves around three central goals:²⁷

1. Eat more fruits and vegetables.
2. Be more active.
3. Speak up for healthy changes.

These three messages correlate with the campaign’s TV spots (*My Kitchen* and *Our Community*) and with sections on the campaign’s Web site (*My Kitchen*, *Be Active*, and *Our Community*). The TV spots and Web site are available in both English and Spanish.



Methodology

One of the pivotal, and most unique, aspects of the campaign is the focus on Champion Moms. Champion Moms are people “just like you” who are committed to improving their families’ health and involved in making healthy changes in their communities.²⁸ Instead of using actors or models, these real moms are featured in the TV spots and on the Web site. Under the section *Be A Champion*, the Web site provides downloadable Hero Mom Success Cards about each Champion Mom. Each card has a picture of one of the moms along with her tips for healthy success. The campaign encourages parents to “be a champion,” reiterating the points that “you are not alone” and “you make it happen.”²⁹ The Web site encourages parents to send in their stories so that they may be recognized as Champions as well.

The Web site, <http://www.cachampionsforchange.net/en/index.php>, is a crucial component of the campaign and provides parents with resources for achieving the three central goals.

The *My Kitchen* section of the Web site provides:³⁰

- Recipes that include fruits and vegetables
 - Breakfast Recipes
 - Lunch Recipes
 - Dinner Recipes
 - Dessert Recipes
 - Snack Recipes
 - Everyday Healthy Meals Cookbook
- “Mom-tested” tips on how to get your family to eat more fruits and vegetables
 - Produce Quick Tips
 - Seasonal Guide to Fruits and Vegetables
 - Fruits and Vegetables for Your Health
 - Help Your Kids Power Up
- A link to mypyramid.gov for daily serving recommendation information
- A link to [Fruits & Veggies – More Matters](#)
- A link to the [National Fruit & Vegetable Program](#)
- A link to the [Great American Eat Right Challenge](#)
- A link to the [Healthy Dining Finder](#)

The *Be Active* section of the Web site provides:³¹

- Tips on how to get your family to be more active
 - Physical Activity for Your Health
 - Help Your Kids Be Active
- Physical activity recommendations
- A link to [California State Parks Find A Park](#)
- A link to [Physical Activity for Everyone](#)



- A link to the Governor's Council on Physical Fitness and Sports
- A link to CATCH
- A link to the California Center for Physical Activity
- A link to Network for a Healthy California – Physical Activity Specialists

The *Our Community* section of the Web site provides:³²

- Simple steps to building a healthier community
- A calendar of community events around the state (coming soon)
- A map of regional nutrition networks
- Downloadable materials
 - Bike Lanes Pave the Way
 - Caring Youth and Adults in Diamond Neighborhood
 - Farmers' Market Grows in West Fresno
 - Food Stamps at Farmers' Market
 - Grocery Store in East Oakland
 - Movement Toward Health
 - Safe Route to Healthy Food
- A link to Get help in advocating for fruits, vegetables, and physical activity
- A link to the California Farmers' Markets Web site
- A link to the California School Garden Network

The *Resources* section of the Web site provides:³³

- Information about Food Stamps
- Network resources
- Network free materials
- Local contact information
- Downloadable materials
 - Easy Steps to Advocate
 - Fruit & Vegetable Assessment
 - Physical Activity Assessment
 - Walkability Checklist

The campaign Web site was designated as a 2008 Webby Award Official Honoree.³⁴



Hero Mom Success Card #1



**"Planning saves
me money on
fruits and
vegetables."**

Alma P.

Stay-at-home mom
One child, age 14 months

Compare Prices and Try Store Brands

They often cost less than name brands but have the same nutritional value. Most store brands taste as good as name brands.

Visit a Farmers' Market

Try a farmers' market to save money on fruits and vegetables — many accept EBT cards.

Quick and Healthy

Visit www.cachampionsforchange.net to learn about quick and healthy recipes that use ingredients you can keep on hand. Your family is sure to enjoy them, and they can be cheaper than going out to eat.

**Mail the enclosed
reply card to get FREE
'mom-tested' tips and
recipes!**

www.cachampionsforchange.net



Funded by the USDA Food Stamp Program through the California Department of Health Services.





Spinach Corn Casserole

Serve this vegetable dish alongside your favorite family meal.

Makes 12 servings, ½ cup per serving

Prep time: 10 minutes

Cook time: 20 to 30 minutes

Nutrition information per serving

Calories 102, Carbohydrate 19 g, Protein 4 g,
Total Fat 2 g, Saturated fat 1 g, Cholesterol 1 mg,
Sodium 214 mg, Dietary Fiber 2 g

Ingredients

- 1 (16-ounce) package chopped frozen spinach
- ½ cup minced white onion
- 2 (14½-ounce) cans creamed corn
- 1 tablespoon margarine
- 2 teaspoons vinegar
- 1 teaspoon salt
- ½ teaspoon ground black pepper

Topping

- ½ cup bread crumbs
- 2 tablespoons grated Parmesan cheese
- 1 tablespoon margarine

Preparation

1. Preheat oven to 400°F. Warm frozen spinach in a saucepan over medium heat. Drain excess liquid.
2. Combine spinach, onion, and creamed corn in casserole dish.
3. Melt 1 tablespoon margarine and add to casserole dish. Add vinegar, salt, and ground black pepper. Mix ingredients together.
4. Spread bread crumbs and Parmesan cheese over top of casserole. Melt remaining margarine and drizzle over topping. Bake for 20 to 30 minutes.



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CELEBRATION



Asparagus





Asparagus

SHOPPER'S TIPS

- Look for firm, bright green stalks with tightly closed tips.
- Avoid limp asparagus stalks or stalks with open tips.

FUN FACTS!

- Asparagus comes in green, white, and purple varieties.
- When temperatures reach 90°F, an asparagus can grow seven inches in one day.

WHAT IS IN IT FOR YOU?

One cup of asparagus (about six medium- to large-sized spears) is:

- An excellent source of vitamin A and vitamin K.
- A source of vitamin C, iron, fiber, folate, riboflavin, and thiamin.

SERVING IDEAS

- Cook asparagus in a small amount of boiling water until tender.
- Thread wooden skewers through whole spears side by side to make an asparagus "raft" that can be easily flipped on the grill.

PEAK SEASON

California grown varieties, available from mid-winter to spring, may be fresher and cost less than varieties shipped from other regions.

STORAGE

Wrap the bottoms of the stalks in a damp paper towel and place in a plastic bag. Store asparagus in the refrigerator for up to three days, and make sure the tips stay dry.

Funded by the U.S. Department of Agriculture Food Stamp Program

California Department of Public Health KFS-640-Rev. 03/08

Key Findings

In an e-mail sent on July 2, 2008 to SOSM researchers, Susan Pennel stated that the awareness level of the campaign in 2007 was at 54% among Food Stamp moms and is expected to increase in 2008. She believes consumers have responded well to the campaign and the Network's 160 partners throughout the state have embraced it. Research was conducted in early 2008 in order to inform the next wave of *Champions for Change* advertisements, which will air in 2009. Six focus groups were conducted, with a total of 34 respondents from low-income target audiences.³⁵ A few key findings from this study are listed below.

- High prices, lack of time, lack of skill in cooking, and resistance from family members are primary barriers to healthier eating.
- Some women felt that if they could not change 100%, there was no point in doing it at all.
- Lack of support from husbands, other family members, and peers makes it more difficult for mothers to show "will power" and "follow-through."
- Complaints about school food were common (e.g., it is unhealthy, it sends the wrong messages, it forces kids to find even worse substitutes).



- Acculturation seemed to pose major challenges for many Hispanics (e.g., eating out and driving instead of walking are American habits).
- Respondents expressed an interest in talking with and learning from other mothers. However, they did not believe that other mothers were taking specific steps to increase the health of their own families.
- Many respondents were most enthusiastic about the *My Community* portion of the campaign, possibly because it makes mothers feel less alone in the struggle.

Detailed Case Summary of California Project LEAN

Organization Summary

California Project LEAN (Leaders Encouraging Activity and Nutrition) (CPL) is a joint program of the California Department of Health Services (CDHS) and the Public Health Institute aimed at increasing healthy eating and physical activity.³⁶ Through an infrastructure of ten regions, CPL works with physical activity and nutrition leaders to implement interventions in communities throughout California. The program's advisory committee includes health, university, and nonprofit representatives.

In 1987, CPL was one of ten programs nationwide selected as part of the Henry J. Kaiser Family Foundation's public awareness campaign to promote low-fat eating.³⁷ CPL implemented a lean-meat nutrition education and media campaign, which reached one million shoppers and resulted in more than 15,000 consumers per week buying lower-fat meats. In 1991, CDHS assumed leadership of the program and expanded its reach by funding regional programs across the state.

Current CPL programs include Food on the Run, Successful Students Through Healthy Food Policies, and the *Huesos Fuertes, Familia Saludable* (Strong Bones, Healthy Families) campaign. Additionally, CPL directs community-based social marketing projects across the state. CPL serves as the local lead agency for the California Nutrition Network and is a partner on the California Obesity Prevention Initiative.

Campaign Summary

CPL published *Community-Based Social Marketing: The California Project LEAN Experience*, a manual that describes the process of planning, implementing, and evaluating its community-based social marketing campaigns conducted in low-income areas from 2000 to 2002.³⁸ Each LEAN Regional Coordinator was asked to carry out a project. The report is designed to assist program planners working on implementing health behavior change programs in their communities.

This report can be found at
http://www.californiaprojectlean.org/Assets/1019/files/Community-Based_Social_Marketing.pdf.



Methodology

CPL programs are based on the Spectrum of Prevention model, which consists of six action levels that are designed to have the greatest impact on behavior change.³⁹ These levels are:

- Level 1: Strengthening Individual Knowledge and Skills
- Level 2: Promoting Community Education
- Level 3: Training Providers
- Level 4: Fostering Coalitions and Networks
- Level 5: Changing Organizational Practices
- Level 6: Influencing Policy and Legislation

The relevant regional campaigns are outlined below.

➤ Bay Area

Target Audience: San Jose Job Corps students 16–25 years of age

Behavioral Objective: Increase intake of fruit and/or vegetable servings by at least one daily

Interventions: Taste tests, educational materials, provider education, media communications, implementation of a fruit and vegetable policy in the cafeteria

Outcome: Fruit and vegetable intake increased by 1.07 servings per day

➤ Gold Coast

Target Audience: Acculturated Latino mothers under 25 years of age

Behavioral Objective: Increase intake of fruits and vegetables as snacks by at least one serving per day

Interventions: Snack parties, WIC class topic of the month, newsletter, posters, radio Advertisements

Outcomes: 95% ate more fruits and vegetables as snacks; daily consumption of fruits and vegetables increased by 2.05 servings after participation in a snack party

➤ Gold Country

Target Audience: Mothers in WIC program

Behavioral Objective: Increase intake of fruits and vegetables by one serving per day

Interventions: Newsletter, posters, skill-building demonstrations

Outcomes: 90% read the newsletter and 40% tried at least one recipe; 56% ate more fruits and vegetables

➤ North Central Coast

Target Audience: Latinas who were not eating 5 servings of fruits and vegetables daily and who have children 6–10 years of age



Behavioral Objective: Increase proportion of those who report eating 5 a day from 58% to 64%

Interventions: Messages on grocery bags, community classes, taste tests, patient reminder cards, *promotoras*, radio spots, agency policies

Outcome: 78% ate 5 or more fruits and vegetables a day, compared to 58% the previous year.

Key Findings⁴⁰

- Program planners need in-depth training in order to successfully implement social marketing campaigns.
- Staff needs to be provided with ongoing financial, technical, and evaluative assistance throughout the campaign.
- Programs should partner with local universities in order to obtain necessary expertise and consultation.
- The campaign process must be flexible in order to work with the unique needs of each community.
- Enlist the support of community partners early in the process and invest resources in continuing these partnerships.



Detailed Case Summary of the Michigan State University Extension *Grow Your Kids* Campaign

Organization Summary: Background of the Statewide Infrastructure

In 1995 and 1996, the USDA's Food and Nutrition Service approved cooperative agreements to establish Nutrition Education Networks in 22 states.⁴¹ The statewide networks would implement nutrition education for Food Stamp-eligible adults and children by building on existing efforts, developing public-private partnerships, and using social marketing. These initiatives would allow for the integration of nutrition education messages throughout the states' food assistance and public-private programs. The MNN at MSUE was created as a result of these agreements. As part of Michigan's Food Stamp Nutrition Education (FSNE) Plan, MNN supplements the county-based Family Nutrition Program. MNN fosters public-private partnerships to facilitate behavior change among Food Stamp Program participants in regard to nutrition and physical activity.

The Network implements the Enhancement Grant Program, which is aimed at expanding and improving FSNE efforts by maximizing the resources available for nutrition and physical activity initiatives around the state. Enhancement Grant recipient agencies enter into a subcontract with Michigan State University and receive 75 cents for every state or local dollar they spend on their initiative. Recipients also receive many resources and specialized services as a part of their grants, including consultation in the areas of project management, social marketing, graphic design, and research and evaluation.

Based on this existing statewide network, MNN helped launch the *Grow Your Kids with Fruits and Vegetables* campaign in 2006.

Campaign Summary

Grow Your Kids with Fruits and Vegetables, a social marketing campaign created in a joint effort between the Michigan Department of Agriculture, the Michigan Department of Community Health, the Michigan Public Health Institute, MSUE, and various community partners, is intended to increase fruit and vegetable consumption among Food Stamp recipients by disseminating a consistent message through community programs.⁴²

The campaign involves awareness efforts by organizations that serve Food Stamp recipients through the use of posters, taste tests, and distribution of *Grow Your Kids* materials.

- For parents and caregivers, the campaign offers:
 - Spiral-bound recipe book
 - Parent tip sheets
 - Kids' activity sheets



- Incentive items (e.g., grocery list pads)
 - Height chart
 - Newsletters
- For WIC nutrition educators and Extension staff in Michigan, the campaign offers:
 - Lesson plans adapted from existing WIC nutrition education modules (*Grow Your Kids by Season*; *Grow Your Kids for Less Money*; *Grow Your Kids With a Rainbow of Fruits and Vegetables*; *Grow Your Kids With Fruits and Vegetables*)
 - Posters
- For early childhood educators, the campaign offers classroom lesson plans.

Additionally, the *Grow Your Kids* Web site provides visitors with downloadable campaign materials and links to nutrition-focused resources.





Fruits & Veggies: Helping your Family to Eat More

Read the tips inside to learn more about choosing healthy fruits & veggies for you and your family.

Fruits and veggies are tasty, healthy and affordable. They are full of vitamins and minerals for your body and are a great source of fiber. Plan to start eating more today.



How Can I Eat More Fruits & Veggies?

Tips to add more fruits & veggies to your day:

- Have a fruit bowl in the kitchen for quick snacks. Fill it with boxed raisins and fresh fruit in season.
- Have a "veggie bowl" or "drawer" in the refrigerator so everyone can see it. Fill plastic bags with carrots, sliced cucumbers, sliced sweet peppers, celery, radishes, cherry tomatoes.
- Add sliced bananas or frozen berries to low fat or fat free yogurt.
- Add one new fruit or vegetable to your shopping cart each week. Let your family pick ones they want to try.
- Snack on dried fruit such as raisins, apricots, dried plums or cranberries.
- Top your cereal with chopped apples, sliced bananas, or dried fruit.
- Have a leafy green salad or veggie filled soup such as minestrone with lunch or dinner.
- Have a baked potato bar for dinner. Provide chopped canned or fresh veggies, low fat cheese, low fat or no fat sour cream and/or vegetarian chili as topping options.
- Add more fruit or veggies to family favorites such as pizza, macaroni and cheese, sloppy joes, pudding, baked goods or tacos.

Make Fruits & Veggies Fun for Kids!

- Cut it up! Use small cookie cutters to cut up slices of fruit such as melon.
- Make pizza art! Top pizza with your kid's favorite fruits & veggies. Encourage children to make a pattern on their pizza or make smiley faces. Experiment with pineapple chunks, broccoli, mushrooms, sliced bell peppers or sliced tomato.
- Beat the summer heat. Freeze washed berries or grapes on a plate in your freezer. Store them in a plastic bag once frozen.
- Make fruit on a stick. Slice or cube your family's favorite fruits and place on a wooden or metal skewer. It is a quick and pretty dessert!
- Visit a farmer's market as a family. Let your children pick fruits & veggies to try at home. If it's something you've never tried before, ask the farmer for suggestions or recipes.
- Grow a garden together. Plant a small garden in your backyard, in a community garden or even in small containers. Let your children each pick a favorite fruit or veggie to plant and encourage them to help care for the plants while they grow.
- Make a fruit salad. Mix your favorite fresh, frozen or drained canned fruit with low fat or fat free yogurt. Top with chopped nuts, granola or dried fruit.



Eat More Fiber!

How much do I need?

Adults need 25 to 35 grams of fiber each day. Most Americans eat less than half of what they need. Most everyone needs to eat more. Fiber can be found in whole grains, nuts, seeds, fruits and veggies.

Tips on How to Eat More Fiber:

- Eat brown rice instead of white rice.
- Choose whole wheat bread instead of white bread. Look for 3 grams or more fiber per slice.
- Choose whole grain cereals. Look for 5 grams or more fiber per serving.
- Double the amount of frozen or canned veggies in soups, stews and casseroles.
- Add canned beans or lentils to your favorite family recipe such as hamburgers, tacos or sloppy joes.
- Make a stir fry with chopped vegetables. You can also use frozen veggies - they cook fast as you stir fry. No need to thaw first.
- Eat whole fruit & veggies more often than juice. Fiber is found in the peel or skin. Limit juice for all family members to 100% juice only and no more than 1/2 cup per day.
- Eat more popcorn. It is a healthy whole grain food if you watch the toppings.
- Choose corn or whole wheat tortillas instead of flour tortillas.
- Mix dried fruits and unsalted nuts for a healthy snack.
- Add dry oatmeal, bran flakes or dry whole grain cereal to yogurt for added crunch.

Tip: When eating more fiber, it is important to also drink more water! Water helps fiber move through your body.

Fruit & Veggies: How Much Do I Need?

Every person is different. Check www.mypyramid.gov to find out what is right for you. Most people need 2 1/2 cups of veggies and 2 cups of fruit each day.

One cup of fruit equals:

- 1 cup cut up fresh, frozen or canned fruit
- 1 cup unsweetened applesauce
- 1/2 cup dried fruit
- 32 grapes
- 1 small apple (size of a tennis ball)
- 8 large strawberries
- 1 cup 100% fruit juice

One cup of veggies equals:

- 1 cup of fresh, frozen or canned non-leafy veggies
- 2 cups leafy greens such as spinach or romaine
- 1 cup 100% vegetable juice
- 1 cup cooked legumes (beans, peas, lentils)
- 1 large tomato (size of a tennis ball)
- 12 baby carrots
- 1 large bell pepper (size of a softball)

And, don't forget! Fruits & veggies come in 5 forms: fresh, frozen, canned, dried and 100% juice. All forms count!



Michigan Availability Guide

	Fruit	Vegetables
January	apples	onions, potatoes
February	apples	potatoes
March		potatoes
April		
May	rhubarb	asparagus
June	strawberries	asparagus, greens, lettuce, onions (green), peas, radishes, spinach, turnips
July	apples, apricots, blueberries, cherries (tart), cherries (sweet), peaches, raspberries	beans, broccoli, cabbage, carrots, celery, cucumbers (salad), greens, eggplant, lettuce, onions (green), peppers, radishes, spinach, squash (yellow, zucchini), tomatoes, turnips
August	apples, apricots, blackberries, blueberries, cantaloupe, cherries (sweet), melons, nectarines, peaches, pears, plums	beans, beets, broccoli, cabbage, carrots, cauliflower, celery, corn, cucumbers, greens, eggplant, lettuce, onions, onions (green), peppers, potatoes, radishes, spinach, squash (yellow, zucchini), tomatoes, turnips
September	apples, blackberries, blueberries, cantaloupe, grapes, melons, nectarines, peaches, pears, plums, raspberries	beans, beets, broccoli, cabbage, carrots, cauliflower, celery, corn, cucumbers, greens, eggplant, lettuce, onions, onions (green), parsnips, peppers, potatoes, pumpkins, radishes, rutabagas, spinach, squash (yellow, zucchini), squash (butternut, acorn), tomatoes, turnips
October	apples, grapes	beets, broccoli, brussel sprouts, cabbage, carrots, cauliflower, celery, greens, eggplant, onions, parsnips, peppers, potatoes, pumpkins, radishes, rutabagas, spinach, squash (acorn, butternut), tomatoes, turnips
November	apples	brussel sprouts, celery, onions, potatoes, rutabagas, squash (butternut, acorn), turnips
December	apples	celery, onions, potatoes, squash (butternut, acorn)

Dietary Fiber in Fruits & Veggies

source: www.ars.usda.gov/Services/docs.htm?docid=7783

Turnips: 2 grams / 1 cup
 Brussel sprouts: 3 grams / 1 cup
 Sweet potato: 6 grams / 1 cup mashed
 Beets: 4 grams / 1 cup cooked
 Broccoli: 2 grams / 1 cup
 Carrots: 3 grams / 1 cup
 String green beans: 4 grams / 1 cup
 Cabbage: 2 grams / 1 cup
 Corn: 4 grams / 1 cup
 Lettuce: 2 grams / 2 cups (equals 1 cup)

Apple: 3 grams / 1 cup
 Pear: 5 grams / 1 cup
 Strawberries: 3 grams / 1 cup
 Tart cherries: 2 grams /

Nutrition Facts

Serving Size 1 cup (220g)
 Servings Per Container 2

Amount Per Serving
 Calories 250 Calories from Fat 110

% Daily Values*

Total Fat 12g 18%

Saturated Fat 3g 15%

Trans Fat 3g

Cholesterol 20mg 16%

Sodium 500mg 28%

Total Carbohydrate 31g 10%

Dietary Fiber 0g 0%

Sugars 5g

Protein 5g

Vitamin A 4%

Vitamin C 2%

Calcium 20%

Iron 4%

* Percent Daily Values are based on a diet of other people's secrets.
 Calories 2,000 3,500
 Total Fat Less than 65g 80g
 Sat Fat Less than 35g 20g
 Cholesterol Less than 300mg 300mg
 Sodium Less than 2,400mg 2,400mg
 Total Carbohydrate 300g 375g
 Dietary Fiber 25g 30g

Source: www.choosemyplate.gov

Reading Labels:

How do I make healthy choices when I buy foods? The Nutrition Facts label on the back of every food product can help you!

Serving Size:

This is the first thing to check. All of the facts on the label, like the calories, fat, and fiber relate to this serving size.

Fat:

Stay away from food high in saturated fat and trans fat. Trans fat (partially hydrogenated vegetable oil) increases the risk of heart disease. Foods labeled "low-fat" have 3 grams or less fat per serving.

Fiber:

A food is a good source of fiber if it has at least 2.5 grams of fiber in a serving.

This material was funded by USDA's Food Stamp Program. The Food Stamp Program provides nutrition assistance. It can help you buy nutritious foods for a better diet. To find out more, contact your local DSH office, check online <http://www.mhs.state.mi.us/mhs/index.asp> or call 1-800-481-4989. This institution is an equal opportunity provider and employer.



Methodology

The following information was procured from the Michigan FSNE FY06 End of Year Report and from a telephone interview conducted on June 24, 2008 with Paul McConaughy.

In order to avoid conflict with the FSNE funding guidelines, the campaign does not rely on mass media approaches. The pilot campaign was tested in 2006 in an urban county and a rural county. The results of focus groups conducted with the target audience were used to choose delivery sites on the basis of their accessibility to the Food Stamp population. Delivery sites included:

- MSUE offices
- WIC clinics
- Head Start agencies
- Department of Human Services
- County community service agencies
- Greater Lansing Food Bank
- Community centers
- Jump Start offices
- Michigan Works! agencies

MNN provided marketing toolkits to each site at no charge, and covered the costs of food used at taste tests and fuel used for traveling to demonstration sites. The toolkits contained:

- Campaign overview
- *Grow Your Kids* logo, letterhead, and promotional poster
- Demonstration information (e.g., tasting events)
- 4 nutrition education modules
- 3 newsletters with recipes on perforated sheets
- 1 additional perforated sheet with 4 recipes
- *Grow Your Kids* reinforcement items (e.g., window clings, photo frame magnets, cutting boards)

Two focus groups were conducted with WIC participants and two with former clients of the MSUE nutrition program or family members of MSUE staff. A few notable findings are listed below.

- Suggested Strategies
 - Implement a WIC requirement that participants read nutritional information before receiving their next set of coupons.
 - Place recipe cards near produce in the store.
 - Print recipes on produce bags.
 - Advertise the campaign on buses and/or at depots.



- Advertise the campaign on phone messages when calling for a balance on a BRIDGE (Food Stamp) card.
- Offer demonstrations in grocery stores.
- Staff Comments
 - People buy familiar food. Have tasting demonstrations at farmers' markets and grocery stores and offer suggestions for various things to do with the produce.
 - Use interactive displays in target areas – something that moms and kids can do together.
 - Arrange for a small group of farmers to sell produce at Food Stamp offices.
 - One respondent felt the recipe cards did not cater to low-income residents because they required too many ingredients and the message was unclear.

Next Steps

Although statistical data on the effectiveness of the campaign are not yet available, Paul McConaughy said there is anecdotal evidence that the campaign has been very well received and predicts it will be successful. The program creators spent the last year revising the campaign materials according to their focus group findings. They began the second round of implementation in mid-May of 2009 and will conduct more research in mid-August of 2009. The project team is planning to expand the campaign to other, preexisting projects, including the Family Bookbag program.



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Findings from Texas AgriLife Extension System Agent Interviews

INTRODUCTION

In order to fully understand fruit and vegetable consumption patterns and awareness in Texas, SOSM researchers interviewed fifteen agricultural extension agents (AEAs; see **Appendix A** for interview guide). AEAs are employees of the Texas AgriLife Extension Service who work in conjunction with the State Legislature and the Texas A&M System. They provide statewide, community-based health and nutrition education to limited-resource populations. Six hundred sixteen AEAs serve 250 county Extension offices across the state of Texas. Jenna Anding, Program Leader and Associate Department Head for Extension at Texas AgriLife, selected the AEAs to be interviewed for this project.

METHODOLOGY

SOSM researchers conducted half-hour interviews with each of fifteen county AEAs to learn more about their observations of fruit and vegetable consumption trends and education among their constituents across the state. Data gathered from the interviews cover the areas of fruit and vegetable consumption patterns of the AEAs' constituents, programs AEAs implement to increase consumption, challenges and barriers faced by AEAs and their clientele, and insights and observations concerning WIC and the proposed changes to the WIC food packages.

RESPONDENTS

The fifteen AEAs interviewed were from the counties of Donnelly, Lubbock, San Patricio, Harris, Williamson, Smith, Bandera, Brooks, Bailey, Galveston, Bexar, Taylor, Tarrant, Travis, and Concho.

TARGET AUDIENCES

According to the AEAs, the target audiences for which they provide education and with which they work are ethnically and racially diverse, and live at or below the poverty line.



EDUCATIONAL PROGRAMS

AgriLife Extension Service provides multiple education programs involving (and sometimes even focusing on) fruit and vegetable consumption. AEAs utilize these internal programs, as well as various local resources, to educate their target populations. While some AEAs work mostly with children, others spend most of their time educating adults, young parents, or senior citizens. The programs and educational tools most frequently mentioned by the interviewees are the following:

- MyPyramid – The current food guide pyramid, which measures quantities in cups and ounces rather than servings and emphasizes physical activity in addition to good nutrition
- Better Living for Texans (BLT) – a food stamp nutrition education program that AEAs use to reach youth about fruits and vegetables and other healthy snacks
- 4-H Programs for youth
- The Expanded Nutrition Program (ENP)

Through these various programs, AEAs expose their clientele to different types of fruits and vegetables, tackle issues such as portion control, talk about preparation and food safety, and discuss recipes that incorporate fruits and vegetables. In addition to making use of the AgriLife Extension Service programs listed above, AEAs partner with local programs and organizations to educate their clients. Among the most popular programs are the following:

- Food banks
- Independent school districts and after-school programs
- Houses of worship
- Boys and Girls Clubs
- Senior adult centers
- Farmers' markets
- Even Start
- WIC

CHALLENGES

Participation. Simply getting people to participate in their presentations is a challenge for many AEAs. The majority of AEAs said that fruit and vegetable education is a priority for their target populations, but others disagree. One AEA said:

It's a priority for us as educators, but it may not be a priority for our target audience. Life gets in the way for our target audience. They have a lot more to think about.



The need for incentives. Several AEAs said education alone is not enough of an incentive to get participants to attend classes.

Relevance. According to several AEAs, people do not see how fruit and vegetable consumption relates to them.

Lack of visible results. Even when people do participate, AEAs are often discouraged by the lack of visible results. They cannot ensure that their clients will make changes once they go back to their lives and routines.

Funding. Several agents expressed a desire for more money to purchase materials to use in food demonstrations and other hands-on activities. Regarding a health fair, one AEA said:

We can't purchase things through AgriLife. All we have are brochures. You think they're coming to my table? No. It sounds petty, but they're going to go to the person next door if they have something to offer clientele. It goes back to money.

Location. Particularly in smaller counties, demonstration spaces are difficult to find. AEAs may use local libraries or meeting rooms, but there is no kitchen equipment for cooking demonstrations at such places.

BARRIERS

AEAs shared several ideas about the barriers their clients face when it comes to eating more fruits and vegetables.

Lack of knowledge and exposure. People will not eat what they do not know about.

Taste. Likes and dislikes get in the way of trying new fruits and vegetables or of giving them a second chance once they have been rejected. According to one AEA:

"My children won't eat it." We hear that a lot, and they're not going to spend money on something their kids won't eat, and they can't afford to let them throw it in the trash.

Culture. AEAs who work primarily with Hispanics say that not many fruits and vegetables are incorporated into the typical diets of this population. Furthermore, in many homes "rice and beans" men influence what is served at the dinner table.

Several agents mentioned that many of their clients consider French fries a vegetable. One AEA said:



Our society is a fast food society and they're no different. The salads at McDonald's are more expensive than the 99-cent hamburger. Cola is cheaper than orange juice or milk.

Cost and stretching food dollars. AEAs frequently mentioned the expense of fresh fruits and vegetables. Almost every AEA voiced concerns regarding choices their constituents make when buying groceries. One said:

How can we make them understand that they can buy grapes for \$2.00 and not chips for \$2.50? They have a mind-set that fruits and vegetables are more expensive.

Shelf life. The drawback of fresh produce, according to some AEAs, is the fact that it is quicker to wilt and rot than prepared foods. People fear wasting money on something that will go bad before it can be eaten. Educating audiences about frozen and canned fruits and vegetables is one approach AEAs take in addressing this problem.

Transportation. Most AEAs believe gas prices are a barrier that keeps their clients from going to grocery stores more frequently, and from attending their fruit and vegetable education programs.

Quality of fruits and vegetables. One AEA commented that getting to a grocery store with a decent selection of fresh produce is a problem for members of her target audience.

One of the barriers we have in this area is that the grocery stores where they shop don't always have the best selection. Even though HEB is the major grocery store, it does not have the same variety and quality in the low-income areas of town that they do on the west side.

Other barriers reported by the AEAs include competing priorities, lack of time, lack of motivation, lack of energy for food preparation, and not having the appliances to prepare food. One AEA said:

This morning I was talking to a lady who is a single woman in her eighties, a retired professional, and I asked her, "What do you see as the biggest barrier to elderly people eating vegetables?" And she said, "The truth is, laziness." She said that people would rather eat out, rather buy prepared foods than spend time purchasing and prepping foods, no matter how limited their income. Cost is beside the point.



EDUCATION APPROACHES

Hands-on food demonstrations. Fourteen of the fifteen AEAs said that food demonstrations are the best way to educate their clients about fruits and vegetables. When people can see, feel, prepare, and then taste fruits and vegetables, it gives them exposure to something that may have been intimidating, and it teaches them how to prepare certain foods. One AEA noted that she often heard comments like, “My kids would probably eat this” after a demonstration. Another AEA said:

They can see it being prepared and how easy it is, then taste it. Then I think they are a lot more interested and can see that it's obtainable and they can do it.

Importance of nutritional value. An important educational tool, according to most AEAs, is simply to explain why fruits and vegetables are important. One AEA said that one of their strategies is to

... figure out ways of getting them excited. WHY do you need fruits and vegetables? What's in it for them? That is a constant focus. You have to prove to them that it's worthy. It costs you this much to go to the doctor because you're not eating right, but if you eat right, you won't have to spend this money. There has to be that connection of, “Why should I eat it?” You have to sell them on it.

“Hiding” fruits and vegetables. Several AEAs mentioned showing their participants how to “hide” fruits and vegetables in dishes like casseroles and smoothies to ensure that their families get nutritional value in a fun way.

How to shop for fruits and vegetables. AEAs explain ways to save on fruits and vegetables, such as shopping for what is on sale and knowing what is in season. They also remind their clients that frozen and canned fruits and vegetables are nutritionally comparable to fresh fruits and vegetables.

Networking groups. One AEA said she provides the education in a support network environment to allow her clients to talk about their food challenges and develop solutions together.



EDUCATIONAL NEEDS

When asked what they think are the greatest needs regarding fruit and vegetable education, AEAs gave various responses. Below are examples of topics AEAs would like to explore further.

- Helping clients identify different types of fruits and vegetables
- Hands-on demonstrations
- Incorporating fruits and vegetables into daily meal planning
- Basic how-to lessons, such as cutting and cooking
- Different ways to prepare fruits and vegetables
- Portion control and serving sizes
- Food safety
- Getting the word out about the benefits and importance of eating fruits and vegetables
- Helping clients stretch their food dollars wisely
- Educating about nutrients
- Breaking clients of the “this is the way we’ve always done it” attitude
- Teaching clients that they have control of their own health

Following up. Most AEAs said they address these concerns in meetings and training sessions, but they have no way to gauge the results because they cannot be sure their presentations will be helpful when everyone goes back home. Some AEAs, particularly in smaller counties, do not have the opportunity to follow up with individuals, since many of the trainings are only one session long. One AEA said:

I can't tell you if it's made an impact or not. When I go to do this, it's a one-shot thing.

Others see positive changes in the form of clients who experience an “Aha!” moment during a demonstration or display animated reactions to activities. Some AEAs passed on conversations they had had with their clients weeks after training sessions, which revealed an increase in their fruit and vegetable consumption. Many agents simply hope they are getting results. As one AEA said:

We'd like to see better impact indicators, but so far we're not seeing people increase their fruit and vegetable consumption.

Alternative methods. In Lubbock County, AEAs conduct surveys with their clients to find out what they have learned. The Lubbock County AEA said:

I think they learn from our surveys we've done. At the beginning, they indicate they have learned a lot more about food safety and sanitation and washing fruits and vegetables and not cross-contaminating, and more about the servings, the



MyPyramid, et cetera. They are surprised that they are supposed to have four to five servings of fruit.

Harris County appears to have the most formal feedback process. Their AEAs give clients tests before and after educational events. The AEA for Harris County explains this practice as follows:

We don't do research studies per se, but we have pre-tests and post-tests and they gather statistics in another office. It seems people do better after education and experience.

EXTENSION AGENTS AND WIC

The AEAs' reactions differed according to their respective levels of involvement with their local WIC agencies. Those with strong ties with WIC generally had less to say about their relationships with WIC and focused more on describing what they actually did with WIC. On the other hand, AEAs with inconsistent or nonexistent partnerships with WIC acknowledged the relationship or lack thereof. Many AEAs expressed frustration with WIC, particularly the feeling of being ignored. One AEA who does partner with WIC said:

The WIC people look at us like we don't know what we're talking about.

Another AEA said:

They have dieticians and nutritionists and they wanted to send their people to my programs because they're free, but what we've found with their audiences is that we have to go where they're at. I wanted to go to their area for a program a few years ago and they pretty much said, "No, don't come, that's our area."

Brooks County has a WIC office, but AEAs have not partnered with them in five years.

They have an outside agency who works with them, so lately they've told us they have their own people and haven't invited us back. I wish we could work with them because we need to get ahold of young mothers.

Concho County no longer has a WIC office. AgriLife formerly partnered with the WIC in Eden, but the latter relocated to a city outside the county.

It really hurt a lot of people in my county when they closed it down.

While many AEAs said they were frustrated with their relationship with WIC, they clearly expressed the desire to change that relationship by partnering more with WIC.



Some AEAs remarked that they do not understand what they perceive as WIC's resistance to develop relationships with the AgriLife Extension, since both organizations work toward the same goals. One AEA said:

What would be a really good thing, from my point of view, is [for WIC] to invite Extension agents and find out who we are and what we do and form better partnerships and [explore] how working together will strengthen both programs. I would like to introduce this idea to the WIC Chief.

Harris, Tarrant, Williamson, and Bexar Counties maintain strong partnerships with WIC. These counties provide food demonstrations and nutritional information for WIC clients while they wait for their appointments. In Bexar County, WIC clients must receive AgriLife's nutritional information in order to get their vouchers.

CHANGES TO THE WIC FOOD PACKAGE

Most of the AEAs we interviewed were unaware that the WIC food packages will be changing. Some were aware of impending changes to the voucher system, but food package changes came as a surprise. Many AEAs agreed that adding whole grains might be the most difficult change for WIC participants to make because of unfamiliarity, the difference in taste between whole grain bread and white bread, and the longer cooking time for brown rice. AEAs were also concerned that people would not know how to cut and prepare the fruits and vegetables, and that many WIC participants would reject reduced fat milk because they believe it has fewer nutrients than whole milk.

When you are talking about a limited-resource family from Mexico, they have ten to fifteen people in one household, and if only one or two of those people are receiving WIC and they have to choose between more milk or fruits and vegetables, they're not choosing the fruits and vegetables! This is bad! It should be a combination. They should not have an option.

EDUCATING WIC PARTICIPANTS ABOUT CHANGES

AEAs communicated many ideas about how to educate WIC participants about food package changes, including:

- Training in reading nutritional labels, especially what to look for when buying whole grains
- Taste tests with milk and juices so they can know the difference between 100% juice and Sunny Delight, between reduced fat milk and whole milk
- Hands-on demonstrations about how to cut fruits and vegetables
- Hands-on demonstrations to go with recipe handouts



- Face-to-face contact at the grocery store
- Having extension agents work with WIC and farmers' markets
- One-page handouts on the changes to the WIC food packages, with few words and many graphics

The AEAs who partner with WIC assume participants will have questions about the changes. Those who have no partnership with WIC think clients who are WIC participants may have occasional questions for them.

Of the fifteen counties, Bexar seems to have the strongest partnership with WIC. The Bexar County AEA said that WIC plans to provide her and her colleagues with orientation about the food package changes.

DESIRED CHANGES TO WIC MATERIALS

Several AEAs requested more Spanish-language materials. One AEA recommended that materials be more “culturally sensitive,” pointing out that educators for particular populations should “meet them where they are.” Another AEA suggested a visual illustration comparing healthy and unhealthy products along with the relative nutritional information, to show participants why they should go with the healthier alternatives. One AEA who does not have a relationship with WIC requested contact information for her local WIC office.

CONCLUSION

The populations with which AEAs work face barriers that prevent them from consuming the desired amounts of fruits and vegetables. However, it is possible to break down some of these barriers with specialized approaches to fruit and vegetable education. The AEAs that SOSM researchers interviewed have insights, strategies, knowledge, and experience with providing limited-resource Texans with fruit and vegetable education. They are an important resource to tap into, since they are actively reaching out to populations similar to those of WIC and have ideas about how to increase fruit and vegetable consumption further.

There is an opportunity here. By cultivating a congenial partnership between the AgriLife Extension Service and WIC, statewide efforts currently under way may more effectively ensure that limited-resource populations are eating enough fruits and vegetables and are aware of their benefits.



FINDINGS FROM FOOD BANK DIRECTORS INTERVIEWS

INTRODUCTION

SOSM researchers interviewed food bank directors around the state in order to gain a deeper understanding of fruit and vegetable distribution and consumption trends among low-income Texas families (see Appendix A for interview guide). Respondents represented 13 of the 19 members of the Texas Food Bank Network (TFBN). TFBN creates a forum for food banks from all over the state to share ideas and resources and facilitates food bank collaboration with state agencies. TFBN food banks work with 3,600 agencies around the state.

TFBN currently supports two programs that directly impact fruit and vegetable distribution to low-income families: Texans Feeding Texans and Texas Fresh Approach. The Texans Feeding Texans program offers an incentive for growers to donate surplus produce to food banks for distribution to low-income families. The Texas Fresh Approach program was created out of a partnership between TFBN and the Texas Department of Criminal Justice. Inmates plant and harvest fruits and vegetables, which are then donated to food banks.

Researchers chose to interview food bank directors because of the crucial role they play in distributing fruits and vegetables to the target population.

METHODOLOGY

Researchers conducted eight interviews with food bank directors, two interviews with food bank chief operating officers, two interviews with food bank nutrition managers, and one interview with a food rescue agency director. Issues addressed in the interviews include barriers food banks face in receiving and distributing fruits and vegetables, food-bank-sponsored nutrition education opportunities, barriers clients face in consuming fruits and vegetables, suggestions for overcoming these barriers, and reactions to the new WIC food package.



RESPONDENTS

The 13 food banks represented in the interviews were:

- Food Bank of the Rio Grande Valley, Inc.
- East Texas Food Bank
- Capital Area Food Bank
- Houston Food Bank
- West Texas Food Bank
- Food Bank of Corpus Christi
- Tarrant Area Food Bank
- Southeast Texas Food Bank
- San Antonio Food Bank
- North Texas Food Bank
- End Hunger Network
- High Plains Food Bank
- South Plains Food Bank

In an effort to protect the confidentiality of the respondents, food bank names will be the only means of identification used throughout this section of the report.

Service Areas

The food banks represented in the interviews vary greatly in regard to service area. The number of counties served ranges from 4 to 27.

Barriers Food Banks Face Receiving and Distributing Fruits and Vegetables

When asked if they would be willing to participate in interviews regarding fruit and vegetable consumption, all of the respondents were eager to contribute. Many of the food banks had already set the goal of improving the health of their client populations and have made efforts toward accomplishing this objective. Respondents were eager to share their experiences, learn about other agencies' efforts, and work toward establishing goal-oriented partnerships.

Although Texas food banks have accomplished a great deal in regard to nutrition education, they still face many barriers in actually providing their clients with healthier options, specifically fresh fruits and vegetables.



Barriers to Receiving Fruits and Vegetables

Availability and Cost

Many food banks have difficulty acquiring fresh fruits and vegetables because they are not located in agriculturally productive areas and have to pay to have produce shipped to them. Two respondents quoted produce shipments as costing between \$1,500 and \$2,500, and with gas prices as high as they are, freight costs continue to rise.

Central Texas isn't an agricultural center. For the most part we have to bring in produce from outside our service area, and usually fruits and vegetables are donated to food banks in that area.

Quality and Variety

Even when food banks receive sufficient donations of fruits and vegetables, they struggle with the quality and variety of the produce they receive. In some cases, the donations are of such poor quality that the agencies will not accept delivery. Additionally, food banks have a difficult time distributing fruits and vegetables that people do not like or do not know how to prepare; therefore, improving the variety of donations is an essential step in increasing fruit and vegetable distribution.

Quality is a problem. Sometimes donors forget we're feeding people and they just call us when they need to get rid of something. Also, with the ethnic makeup down here, they don't know what a lot of it is, or how to use them, like greens. We had some snow peas, and I ended up shipping them to a food bank in San Francisco where there was a large Asian population.

Storage

Once food banks receive quality produce, they must find a way to store and deliver it before it goes bad because fruits and vegetables have relatively short shelf lives. This is especially true for the food rescue organization, End Hunger Network, which picks up perishable food that will soon be thrown away. (Three of the food banks contacted declined to be interviewed, explaining that they did not have adequate refrigeration facilities to store produce and, therefore, did not handle fruits and vegetables.)

The food we pick up has such a short shelf life, like it will be bad tomorrow.

The capacity to handle fruits and vegetables is a barrier. We have cooler space, but it can only hold so much.



Barriers to Distributing Fruits and Vegetables

Agency Capacity

Although most food banks have sufficient storage facilities, the agencies to which they deliver usually do not have room or adequate refrigeration equipment to keep the produce for any length of time. Consequently, the food banks are challenged with coordinating their deliveries with the agencies' distribution schedules. A few food banks have invested in refrigerated trailers to overcome this obstacle, but this solution adds to the food banks' overall costs and they cannot afford to supply enough trailers to meet all of their agencies' needs.

We have 200 agencies and the problems are at that level. They may not have room to store fruits and vegetables, so unless we deliver them at just the right time, it doesn't work.

Cost

Several respondents acknowledged that the costs of labor, trucks, and gas are all hindrances for food banks when it comes to distributing fruits and vegetables. A few expressed a need for additional funds in order to assign a couple of employees and a truck to work exclusively on fruit and vegetable delivery.

We cover such a large area—we need assistance with transportation and gas costs.

If I had more money, for fuel, trucks, et cetera, I could carry more loads.

Locally Grown Produce

Most food banks do not receive or distribute locally grown produce due to lack of availability. Because produce donations come primarily from large growers, food banks do not often acquire locally grown fruits and vegetables. The only food banks that reported receiving locally grown produce were those located near agricultural areas, such as the Rio Grande Valley and Marfa, and even these food banks do not receive local donations on a regular basis. Furthermore, a significant amount of produce donations comes from food distributors, which limits food banks' ability to determine where their produce originated.

[We get] Very little—they are usually just walk-in donations from very small growers.



Suggestions for Increasing the Amount of Fruits and Vegetables Available for Clients

Provide Variety

Several respondents pointed out that a variety of fruits and vegetables needs to be available at each of the agencies in order to increase the amount clients take home and eat. The food banks often receive the unusual produce that distributors have a difficult time selling, which leaves food bank clients with limited options.

We don't receive a lot of variety. It would be good to provide a choice for the clientele, otherwise there is limited appeal. For example, cabbage—they didn't grow up with it and don't know how to use it.

Offer Demonstrations

In order to address their clients' unfamiliarity with certain types of fruits and vegetables, respondents suggested that the agencies provide clients with recipes, taste tests, and cooking demonstrations.

If you invite people to try fruits and vegetables, and they like them, they will take them.

Improve Marketing Tactics

One respondent pointed out that the easiest way to increase the availability of fruits and vegetables for clients was to improve food banks' ability to provide more produce. In order to increase the amount of donations food banks receive, she suggested using marketing campaigns to expand awareness of food banks and food rescue organizations among food distributors and growers.

We need to let more produce distributors know about our service so they can call us instead of putting it in the landfill.

Food Bank Nutrition Education Classes

In order to help improve their clients' health, the majority of food banks have established nutrition education programs, which they feel are highly effective. All but one of the food banks offer nutrition-focused education classes; the food rescue organization does not offer classes. The various types of classes offered are described below.



General Nutrition Classes

Most of the food banks offer general nutrition classes for all age groups, usually held at their agencies. Children's classes are often conducted in their classrooms or at their after school programs, such as Boys & Girls Clubs. Adult classes are often held at food distribution centers, churches, women's shelters, homeless shelters, housing authorities, or health fairs. These classes have predominantly female audiences between the ages of 30 and 60. Senior classes are conducted at senior citizen centers.

The classes are generally offered at different locations every week. The content covers a variety of nutritional issues, such as reading food labels, shopping cost-effectively, determining nutritional value, and cooking skills. Although they are not always offered, incentives include kitchen gadgets (e.g., thermometers) and bags of food. The most successful classes involve hands-on demonstrations of how to compare the nutritional values of different foods, or how to cook produce.

Kids' Café

Kids' Café programs provide free meals and snacks to low-income children, and many of the food banks use this as an opportunity to teach kids about fruits and vegetables. They often teach the children how to make healthy meals.

At the Kids' Café sometimes we have Smoothies for Supper, and they make smoothies and then we talk about nutrition.

Operation Frontline

Three of the food banks represented in the interviews use the Operation Frontline curriculum and format for their nutrition education classes. Operation Frontline was created by the national Share Our Strength organization. It is a six-week course with one two-hour class per week. Participants receive workbooks, handouts, and recipes. The first four weeks involve food demonstrations by local chefs and nutrition experts. For the fifth class, participants are taken on a tour of the grocery store to show them that they do not have to spend more money to eat healthier. The sixth class is a celebration during which they learn how to make healthy celebration foods. If participants attend four or more classes, they receive a certificate and a graduation goodie bag, which includes items such as a thermometer, kitchen cleaners, and lunch containers. Although Share Our Strength provides the workbooks, evaluations, and a few gifts, the food bank is responsible for all other costs and each class is limited to 15 people. However, respondents cited it as the most in-depth nutrition course available.

Televised Classes

Three of the food banks conduct cooking demonstrations weekly on local television stations, which enables them to reach a larger audience in a more convenient manner.



The Food Bank of Corpus Christi reaches 18,245,364 people through their media outreach efforts, which include their TV shows and Web site.

Farm & Garden Program and Community Supported Agriculture

The South Plains Food Bank created the Farm & Garden Program, which takes at-risk youth to a farm and teaches them how to grow, cook, and market produce. South Plains is also involved with the Community Supported Agriculture program, in which community members can buy shares in the food bank's farm and, in return, receive five pounds of produce each week, contingent on the productivity of the farm.

Happy Kitchen

The Food Bank of Corpus Christi uses the Happy Kitchen curriculum, which is based on *My Pyramid*. The classes aim to expose people to new foods and reach approximately 5,000 people per year.

Information on Fruits and Vegetables and Gardening

The vast majority of food banks that offer nutrition education classes provide information on fruits and vegetables during the courses (one director was unsure whether her food bank's classes did or not).

Only two of the food banks offer information on locally grown produce, and four offer classes on gardening, with one additional food bank in the process of establishing a gardening component. Two of the four food banks that offer classes on gardening have taught classes on container gardening for people who would like to garden but do not have the space. The two that offer information on locally grown produce work to support community gardening efforts.

Barriers to Fruit and Vegetable Consumption

Unfamiliarity

Overwhelmingly, respondents identified unfamiliarity as the primary barrier to their clientele's eating more fruits and vegetables. They pointed out that people who did not grow up eating fruits and vegetables are less likely to pick them out at the agency or store. They are resistant to try a new fruit or vegetable because they do not know what it tastes like or how to prepare it.

They have an unwillingness to try something they're not familiar with and a lack of knowledge about preparation.



Cost

A few respondents acknowledged that the cost of fruits and vegetables is a barrier for many families to increase fruit and vegetable consumption. When families are on tight budgets, they do not want to spend their money on food items that will be inedible in a few days.

Cost—people want to spend their money on food that will last.

Fresh Versus Frozen

The two nutrition education managers mentioned that some of their clients feel that if they cannot have fresh fruits and vegetables, then nothing else will do. These respondents teach their clients how to compare nutritional value between fresh, frozen, and canned fruits and vegetables, and how to improve the less healthy options (e.g., washing the salt off of canned vegetables).

They have weird ideas about nutrition, like “If I can’t eat fresh produce every day, then nothing else is good enough.”

Lack of Control

A few respondents mentioned that their parent clients worry about incorporating fruits and vegetables into their meals when they know that their family members will not like the taste. One of the nutrition education managers noted that the mothers she works with express a sense of lacking control over what their families eat. She identifies the media as a mother’s primary competition in terms of influencing her children’s eating habits.

They give Gatorade to their kids and they don’t know why—the kids ask for it. They feel like they have lost control of their homes.

Suggestions for Enabling People to Eat More Fruits and Vegetables

Increase Familiarity

The majority of respondents recognized that their clients want more fruits and vegetables than they are able to deliver; however, the clients are specific about wanting more of the fruits and vegetables that they actually like. Food banks and their agencies, as well as grocery stores, can offer taste tests to encourage clients to try new produce items. Additionally, incorporating produce into cooking classes will expose participants to the various ways a fruit or vegetable can be prepared.

If they say they don’t like fruits and vegetables it’s usually just that they haven’t had it prepared in a way that they like. It takes someone nine to fifteen times to get used to something.



Improve Preparation Skills

Many respondents offer cooking classes in which they incorporate fruits and vegetables and, as an incentive, send participants home with a bag of the ingredients. In this way, clients are able to learn how the various fruits and vegetables can be prepared and are then able to try the recipes at home with their families.

Get the Kids on Our Side

Because parents are reluctant to buy food their children will not eat, a few respondents suggested incorporating fruits and vegetables into the food banks' kid programs, such as the Kids' Café, in order to get children accustomed to eating them. Once the kids realize they actually do like fruits and vegetables, they will begin asking for them at home.

You hear a lot of parents say, "Oh, he won't eat that," but when we feed it to the kids in our program, like broccoli, they love it.

Recommended Nutritional Campaigns

When asked about nutritional campaigns with which they are familiar, many respondents mentioned the USDA 5-A-Day campaign. However, most food banks use either *My Pyramid* or stick with local efforts. The East Texas Food Bank customized the national *Eat Smart. Play Hard.* campaign to make it more kid-friendly and used it to advertise for their Summer Food Program, which provides free meals to youth during the summer break. The campaign was implemented via fliers, mailers, posters, billboards, and PSAs and reached an estimated 57.1 million people, based on the potential reach of the media market. After this campaign, Summer Food Program participation rates increased by almost 100% from the previous year. In general, however, respondents identified a need for more promotion of nutrition campaigns at the local and state levels.



Partner Programs

The most frequently mentioned partnering agencies were:

- Boys & Girls Clubs
- Senior citizen centers
- Schools
- Churches
- Shelters (e.g. homeless, domestic violence)
- Soup kitchens
- Food pantries
- Children's foster and residential agencies
- Housing authorities
- YMCA
- Red Cross
- Salvation Army

Partnering With WIC

Only five of the food banks have connections with WIC, and these are simply referral-based relationships.

I don't think we've actually partnered with them. Our Customer Services does outreach with our partners and sometimes they help WIC participants with their applications because usually if they qualify for Food Stamps, they qualify for WIC.

Opinions and Suggestions Regarding the Changes in the WIC Food Package

Only three of the respondents had heard of the proposed changes in the WIC food package, and no one had heard of any recent updates on the implementation process.

Respondents felt that receiving less milk, cheese, juice, and eggs would be the most difficult change in the food package for WIC participants to accept. However, most felt that once participants realized they would be receiving a greater variety of food, they would be satisfied with the changes. They emphasized the need to educate WIC participants before the changes are implemented.

A few of the respondents' suggestions for educating WIC participants about the change are listed below.

- Food banks and WIC should have consistent messages on their Web sites, in their classes, and in their literature.
- Marketing should focus on the added variety and nutritional aspects of the package.



- Give out samples of new foods.
- Put information in clinics and supermarkets.
- Explain the nutritional reasoning behind the changes.

When asked about materials aimed at helping WIC participants with these changes, respondents emphasized the need to keep the terminology simple, incorporate artwork, and provide Spanish versions of the materials.

Only three of the respondents felt that they would receive questions from WIC participants regarding the food package changes.

Internet Access

All of the food banks represented in the interviews had access to the Internet.

CONCLUSION

In reviewing the food bank interviews, three primary conclusions can be drawn from the responses. First, limited access to fresh fruits and vegetables is a significant barrier for food banks, a barrier that then filters down to the low-income populations being served by TFBN and by WIC. In order to increase fruit and vegetable consumption, quality produce must be made readily available in the food banks and grocery stores serving this population.

Second, ongoing exposure to a variety of fruits and vegetables is necessary in order to increase consumption among low-income populations. Hands-on cooking classes and taste tests are ideal tactics toward this end. Furthermore, grocery bags filled with the ingredients used in the cooking class are an effective incentive and enable the participants to use their newly learned skills at home.

Finally, efforts to increase fruit and vegetable consumption will be made more effective by establishing a partnership among all state agencies working toward this goal. Although TFBN and WIC serve the same populations, there is little or no interaction between these agencies at the local level. Food bank respondents expressed an interest in developing a mutually supportive relationship with their local WIC agencies. Such a partnership would enable TFBN and WIC to promote a unified message to their clientele during the upcoming fruit and vegetable campaign.



Additional Comments and Suggestions for DSHS

Following are some miscellaneous comments of food bank respondents that DSHS might find useful and relevant.

All the facts about fruits and vegetables being nutritional won't help unless we have the funding to get them to the people. Packaging and transportation are costly. We need assistance from the State—the fuel is eating us up.

Food banks and nonprofit groups operate in such a way that we can get discounted media space, so the State shouldn't forget about that. I can get billboard space donated that the State would have to pay for. The State should partner up with strategic groups. The for-profit market, like the grocery industry, that's where it's going to happen. I believe in integrative marketing—if their kids hear about it at school, then they see it in the store and see it on TV, they will get it.

Ninety-six billion pounds of food go to waste in the nation each year, so if we can get some of that food, including fruits and vegetables, into the hands of those people, whether they like it or not, it would be better for everyone.

My service area is 45,000 square miles, and the people in rural areas are very scattered. We have to take information to them.

The main initiative among Texas food banks is that we are looking for a curriculum we can all use around the state. We want something more user-friendly than the USDA program. The curriculum would need to use food that our populations have access to, since they primarily use food pantries so, for example, they can't require a lot of spices.

Clients have to be able to get produce into their homes. There needs to be a change at the grocery level and in the ability of food banks and agencies to store and provide fruits and vegetables.



FINDINGS FROM NUTRITIONISTS AND COMMUNITY PARTNER INTERVIEWS

INTRODUCTION

SOSM researchers conducted one-on-one telephone interviews with individuals involved with selected WIC and community food projects to learn more about fruit and vegetable education and consumption among low-income Texas families. These individuals play a direct role in influencing produce consumption among families vulnerable to food insecurity, poor nutrition habits, and related health risks.

METHODOLOGY

Researchers conducted interviews with four WIC nutrition educators, two regional nutritionists, and three community project coordinators. Issues addressed in the interviews include current education programs about fruits and vegetables, challenges to implementing fruit and vegetable education, barriers to adding more fruits and vegetables to the family diets of low-income clients, best practices in client education, areas for improvement, anticipated difficulties for clients and educators in adapting to the new WIC food package, and suggestions of tools and strategies for providing behavior-changing education. Interviewees were also asked about collaborative partnerships with other agencies.

RESPONDENTS

To protect the confidentiality of the respondents, interviewee names are not used in this section of the report. Findings pertaining to WIC nutrition educators, regional nutritionists, and community partners are presented separately.

FINDINGS

WIC Nutrition Educators

The four WIC nutrition educators interviewed for this research project had 1 to 15 years of experience in their current positions. They represented WIC programs ranging in size from 8,600 to 99,600 client visits per month.



Current Fruit and Vegetable Education

Clients' Level of Nutrition Knowledge. The nutrition educators generally felt that client knowledge of nutrition had improved in the past five years. One nutrition educator said clients' level of knowledge is unknown because it is often not carefully assessed during clinic visits and client-centered education.

WIC Fruit and Vegetable Education Programs. Hands-on interactive strategies, such as cooking demonstrations, food-tasting events, and opportunities for recipe distribution and sharing, were reported to be the most well-received by clients.

Anecdotally, women say, "My children don't like that." With food demos, the kids get to sample, for example, bell pepper, and moms say, "I didn't know he'd eat that."

Other strategies these interviewees mentioned included smart snack classes, online classes, bulletin boards, and classes on take-home DVDs. WIC education strategies are evolving to include more client-centered education and online classes.

Other Fruit and Vegetable Education Sources. Texas AgriLife (Better Living for Texas classes, Options classes, and diabetes education classes) and local food banks were the most frequently mentioned entities providing nutrition education that promoted fruits and vegetables. The Head Start program (classes for kids and parents, container garden classes) was also mentioned.

Client Priorities

Interviewees generally agreed that clients value fruit and vegetable education. They also agreed that the addition of fruits and vegetables to family meals takes second priority to other food issues, particularly food insecurity and feeding a family on a tight budget.

They value it because it pertains to the well-being of their families. Many times we may not see how they value it. They are very receptive to counseling and classes. They have a problem with implementation.

Be a little bit careful not to be insulting to them. They have lots of priorities. The new WIC food package may help. They feel guilty enough without making them feel worse. They know their kids need them [i.e., fruits and vegetables]. They don't know how to make it work.



Barriers to Client Use of Fruits and Vegetables

Unwillingness to waste food dollars on items the family may not eat is a primary barrier to inclusion of fruits and vegetables in family meals.

Lack of familiarity with food preparation techniques often is another obstacle to the incorporation of fruits and vegetables into the diet. Some WIC clients do not know how to cook and have no role models from whom to learn.

We hope our cooking classes bridge the [implementation] gap. The art of cooking is dwindling. Parents didn't cook either. Our society is no longer agricultural. People don't know where their food comes from.

Several interviewees noted that clients believe fruits and vegetables are too expensive and are not knowledgeable about buying in-season products. Perishability also discourages clients who experience food insecurity and worry about stretching every food dollar. Clients do not know how to shop for lower cost, in-season produce.

"It costs too much" are the first words. It's cheaper to buy chips.

Clients believe fruits and vegetables are too expensive. [We should be] teaching how to choose less expensive ones. The fact that the emphasis is not just on fresh makes it easier.

Because WIC hasn't provided fruits and vegetables, other than the seasonal vouchers, it is difficult to teach people about buying items that are perishable.

Geographic access to produce is a challenge in both rural areas (where produce choices are limited) and urban areas (where stores within walking distance may have fewer choices and lower quality produce than stores in more affluent neighborhoods). Access to farmers' markets is limited. Walking home from a store carrying both a child and groceries can be a daunting challenge.



Impact of Fruit and Vegetable Education

Successful Fruit and Vegetable Education. The WIC nutrition educators viewed interactive learning, such as food demonstrations and taste-testing events, as their most successful and most motivational strategies in fruit and vegetable education. These activities build confidence in using unfamiliar food items. Combining fresh and canned produce was mentioned as a strategy to help clients stretch food dollars and avoid problems with perishability.

Classes work well, but looking at something and seeing how [to combine] a few ingredients together works better. You see it in their faces.

Opportunities for Improving Fruit and Vegetable Education. Interviewees offered several strategies for improving the effectiveness of fruit and vegetable education, including the following.

- Provide easy, appealing, and quick recipes
- Offer food demonstrations
- Use appropriate language—low-literacy and Spanish language materials
- Offer clients tips on how to add fruits and vegetables to their diets without increasing the family food budget, such as by demonstrating how to scan newspapers for sale items and generic brands

Smaller programs reported more flexibility in engaging participants in cooking demonstrations and food-tasting events. Larger scale, mostly urban programs found food demonstrations and tastings to be logistically difficult and occasionally in conflict with other department tasks related to food preparation monitoring.

Tasting is hard for us to do. It's a conflict of interest to buy food. Part of our agency does inspections. This is a big issue.



The New WIC Food Package

Changes in the WIC Food Package. Nutrition educators anticipated several areas (listed below) in which returning clients would have difficulty adapting to the new food package.

- Increased use of whole grains, with which clients are generally unfamiliar
- Infant formula changes
- Reduction of juice products
- Reduction of milk, which is used to feed the family

Educational Strategies for Introducing the New WIC Food Package. Education about the new food package should begin well in advance of the package's implementation, according to several nutrition educators. They recommended emphasizing the additions to the food package rather than the reductions; talking about health benefits of the new package (e.g., reduction of constipation for pregnant women, cavity reduction for children); and using concrete, visual examples.

Tell people well ahead of time. People don't like feeling surprised or that they are losing something.

Start early, at least six months in advance, which would be February. I really think they will be excited for the most part. We have talked about next year as the big change (fruits and vegetables) and they perk up.

When talking about juice, for example, show proposed quantities, such as what a four-ounce cup looks like.

Focus on additions and educate on subtractions.

Intensive education with grocery store personnel should begin well in advance of the new food package initiation to help ensure that they fully understand the changes to WIC, can make accurate changes to signage on shelved products, and are prepared to provide clients with positive experiences at the checkout stand. In-store assistance with the buying process should be provided by WIC staff or store staff.

Nutrition educators said the question they most anticipate from clients is “why?”—meaning, why the change toward a reduction of whole milk.



Development of New Materials. Educational materials on the new food packages should be colorful, simple, and have minimal print content. Tools should be available in multiple forms: group classes, take-home DVDs that cover food preparation lessons, online classes, and bulletin board presentations. One nutrition educator suggested creating and distributing a brochure. Nutrition educators did not recommend posters, reporting that clinic walls are generally covered with them but they are seldom read.

One nutrition educator said the need for new materials might serve as an incentive to follow through on her ambition to write a children's book entitled *Why Milk?*

Additional Comments of WIC Nutrition Educators

We are also re-educating ourselves—to go from five servings to two cups, such as 12 baby carrots is a cup. An apple or a banana is a cup, but can you fit them in a cup?

We think we'll see a big impact with what we say and what we provide being on the same page. We're all excited.

Regional Nutritionists

Two regional nutritionists (with 4 years and 16 years of experience, respectively) participated in the survey.

Role of Regional Nutritionists

Both nutritionists interviewed reported that they partner with community agencies rather than with individuals. They make presentations to groups such as Parents Nights at schools, school classes, and university classes; act as resources to entities such as *promotoras*; and make an effort to accommodate informal inquiries from individuals such as Boy Scout den mothers.

The primary objective of the position is to work with communities to put into place policy and environmental changes that support more healthful eating and physical activity.



Fruit and Vegetable Education

Current Fruit and Vegetable Education. In partnership with AgriLife, regional nutritionists may talk about portion control and the importance of avoiding enhancements. They may also introduce school students to fruits and vegetables with which they are unfamiliar.

We teach fresh, frozen, canned is all good, but that adding cream sauces, et cetera, is a problem.

With younger children, I have let them play with the food and create artwork: a tortilla with cream cheese on which they stick food samples and then eat it.

Regional nutritionists order CDC materials and explain packets as they relate to the interested audience.

Agency policy disallows budget expenditures on food, so a community partner such as AgriLife may sometimes purchase food for demonstrations.

Additional Fruit and Vegetable Education Programs. The regional nutritionists reported a wide range of other community fruit and vegetable education opportunities, including those provided by WIC, Texas AgriLife, the Marathon Kids program (Austin), school gardening programs, upcoming farmers' markets, and a United Way grant that funded education in ten schools.

Client Priorities

Clients value nutrition education but don't know how to apply it. Preoccupation with non-food family issues, such as preventing gang involvement and drug use, were also listed as challenges to attending to proper nutrition.

Barriers to Client Use of Fruits and Vegetables

Barriers to client use of fruits and vegetables could be succinctly summed up as lack of time, financial limitations, and transportation issues.

In some neighborhoods, both inner-city and some very rural, isolated areas, there is no local access to fresh fruits and vegetables. They may once a week travel a hundred miles to do a big grocery shopping. They don't buy a lot of fresh produce.

The problem is not the education. It is what they can do with the information after they get it.



From the point of view of the regional nutritionists interviewed, the primary challenge was familiar: to educate about cost efficiency, shopping skills, and money management so that families can maximize their food dollars and manage limited time.

They don't want to buy foods already cut up, like salad in a bag—too expensive—and don't want to spend time to chop and dice fresh stuff.

Impact of Fruit and Vegetable Education

Successful Fruit and Vegetable Education. Regional nutritionists said demonstrations, hands-on preparation, and taste testing were very effective. One interviewee suggested that empowerment and self-esteem building would be a first step toward successful nutrition implementation.

I've found that feeding them something that tastes good seems to work. We partner with AgriLife and the Junior League. They go to four schools and do cooking demonstrations. People will come for a free meal.

Opportunities for Improving Education. Regional nutritionists mentioned discussion with other professional groups as part of the process leading to more effective education. One suggested that more emphasis on health benefits and risks may help motivate low-income shoppers.

The New WIC Food Package

Changes in the WIC Food Package. Both regional nutritionists said that increased support for fruit and vegetable consumption would be exciting to clients, but access to attractive produce would be an issue. Education about protein changes in the WIC food package was also encouraged.

The regional nutritionists anticipated questions from clients regarding food preparation for new and unfamiliar items. Some women may ask about the health benefits and changes in WIC-eligible dairy products.



Educational Strategies for Introducing the New WIC Food Package. It will be important to explain the changes to clients in a positive way and to inform them that the increased provision of fruits and vegetables is the result of a better understanding of their value in a nutritious diet.

Let them know that a general health assessment had led to more options for a healthier lifestyle.

Some effective strategies may be more labor-intensive. Clients' access to fresh produce may be improved by expanding hands-on learning opportunities and demonstrating strategies to address access issues—for example, a WIC-office-sponsored field trip to a farmer's market or grocery store. Teaching school children may help as well. One interviewee described an event in which fifth-graders were taken to a farmers' market. Each child was given \$1, and they went into the market in adult-supervised groups of 8 to 12. The farmers talked to them, and each student bought something. They went back to the classroom and combined their purchases to make a salad.

Showing people how to shop at a farmers' market. Something could be done in a supermarket too, field trips.

Some women's access to markets or transportation may be affected by safety and cultural concerns, which can be addressed as well.

Partner up to travel to stores if you're a single mom. Cultural and safety demands require some women to travel in groups rather than alone.

Development of New Materials. The interviewed regional nutritionists did not want more brochures. They proposed more innovative tools and games for adults as well as children, such as placemats for children and their families and "any games but food bingo." Checklists and journals, combined with simple presentations, were also recommended.

To smooth the transition for WIC shoppers, it is important to work closely with grocery store partners to educate checkout staff and adapt shelf signage to the new WIC food package.

Additional Comment of a Regional Nutritionist

So much of this population is Hispanic, they may live in a city with a market. The store may sell fruits and vegetables they don't know, but not sell nopales, for example. More of those could be incorporated. That population likes fruits and vegetables. They seem to be able to find fruits, but are not so successful with vegetables.



Community Partners

Community partner interviewees represented a farmers' market project and a community garden project within an established food bank.

Projects, Goals, and Roles in Fruit and Vegetable Education

Farmers' Market Project. The goal of the Farmers' Market project was to implement changes in environmental policy within local communities. The Farmers' Market project in the Ft. Worth area (one market is currently in existence and one is in the planning stages) focuses on establishing market locations accessible to low-income families and delivering message signage about fruits and vegetables. It serves paying customers and those with WIC vouchers. The project is in its first year, and its success is being measured in terms of voucher redemption and distribution of recyclable shopping bags. The project is promoted through temporary magnetic automobile signs, billboards, and word of mouth. The greatest challenge is the dearth of farmers within 150 miles of the market.

A key lesson learned from the farmers' market experience was to enter the project with an understanding of the conservative nature of local farmers, which can influence partnerships and their willingness to take risks with crop variety.

Farmers are very independent people. The thing that makes them wonderfully independent also probably causes them to be conservative in their business ventures. A drought could wipe them out.

Successful marketing hinges on market visibility and word-of-mouth communication.

Community Garden. The second community project, a relatively new, seven-acre community garden in San Antonio, is under way under the auspices of a city food bank. The goals are to produce healthy fruits and vegetables for low-income families (who participate in the gardening process) and thus improve their diets, and to educate them about the health benefits and preparation of fruits and vegetables. The Community Garden project engages the community in sustainable agriculture, improved nutrition, and out-of-doors physical activity. The garden is about 14 months old and serves primarily low-income families. Planned evaluation will focus on pre- and post-nutrition education and follow-up with those who use the garden. Garden produce is supplemented by donations from the local produce terminal; produce is also donated by local gardens and commercial farms in the Rio Grande Valley. The project is publicized through its network of 400 agencies that feed about 25,000 individuals per week in a 16-county region. A nutrition education team provides classes in outlying areas, at the food bank, and in the garden. The greatest challenges are the limited volume of produce, the short growing season, the severity of Texas summers, which discourages garden work, limited irrigation capacity, and staff shortages.



Take on what you think you can do and sustain without going too far down the road.

The key lesson learned from the community garden experience is that success depends on a long-term commitment as well as on access to and control of the property. A balance must be struck between garden potential and financial, climatic, and labor-related realities.

Fruit and Vegetable Education and Consumption

According to the community partners interviewed, providing clients with samples of unfamiliar foods is essential to changing food consumption patterns.

Help them get over the preparation myth, such as an acorn squash. Do you peel it, slice it, dice it? What part do you eat? Do you salt it or butter it?

This group of interviewees also views the cost of produce as a major barrier to consumption.

Produce in the local convenience store or market is not in the best condition and [is sold at] the highest price.

Perishability is an issue when food is transported out to the broader 400-agency network.

Fruit and vegetable education can be improved through continuing emphasis on shopping economics: buying in-season produce, combining fresh items with frozen, and suggestions about how to stack meals (e.g., by using lettuce for hamburgers in one meal and in a salad for the next meal).



The New WIC Food Package

Knowledge of WIC and the New Food Package. WIC is integral to both of the community partner programs. The farmers' market is within the same department as WIC, which serves 56,000 clients a month. The food bank, which supports the community garden, provides samples of food to participants and promotes federal benefits to those who qualify.

Promotion of new foods through sampling and taste testing is essential to cultivating new habits and a new palate.

We get some amazing high-end breads that the bakers give us for free. We take them to the shelter, where the guys say, "I wish you'd stop leaving this junk off, leave it in the trash. The crust is hard." Their familiarity is that hard crust means old bread and old bread means bad and bad means "I'm not going to eat it." They want really soft, light, sliced, cheap bread. We say our crust is really kind of wonderful. Heat it up and put something on it. Change is hard, but change is good.

Suggestions for Materials. The community partners suggested strategies rather than materials. They mentioned strategies such as educating grocery store staff and putting a positive "spin" on the food package changes, focusing on the increase in variety rather than on the reduction in the quantities of certain items.

Like those little shelf markers that mark foods in the grocery store. It will be really important to make sure grocery stores understand the change and correctly place those WIC markers In 28 years it has not changed, and now it will. Some people at the stores have a little attitude Clients get more upset at the grocery store than at WIC when bad experiences occur.

One interviewee addressed the psychological connection to food, noting that clients don't want to feel beholden and should be encouraged to understand that this is a nutrition program rather than a welfare program.

Suggestions of educational tools centered on tangible visual items and strategic props and signage.

We use a lot of props and real tangible demonstrations, like a bottle of soda pop or a 44-ounce cup of sweet tea. And they'll have there the actual volume of sugar in those beverages.

The interviewer's request for suggestions of educational materials drew less interest than the request for suggestions of strategies. The only material suggestion offered was to



design a printed piece to communicate with WIC partners, such as visiting home nurses or teachers at residences for teen parents.

CONCLUSIONS

WIC nutrition educators, regional nutritionists, and community partners mentioned similar themes in their suggestions for increasing fruit and vegetable consumption within low-income families.

- The inclusion of fruits and vegetables in the diets of low-income families is directly influenced by real or perceived costs, knowledge of fruits, vegetables, and easy preparation methods, time constraints, and access to appealing produce.
- Innovative, interactive, hands-on demonstrations, opportunities to taste unfamiliar fruits and vegetables, and easy recipes are essential tools in increasing the content of fruits and vegetables in the meals of low-income families. Printed materials must be simple, colorful, and fresh. These strategies apply to educational campaigns promoting other food groups as well.
- Increased access to fresh produce may be facilitated through additional innovative, off-site strategies, including field trips to grocery stores and markets, and displays, booths, or personal assistance in grocery stores. Close partnership with grocery stores is critical to ensuring a smooth transition and a positive shopping experience for WIC and low-income clients.



Appendix B

Methodology

METHODOLOGY – CHILD CARE PROVIDERS

The Texas Department of State Health Services (DSHS) contracted SUMA/Orchard Social Marketing, Inc. (SOSM) to conduct an evaluation of food service practices for children among parents and day care center workers. SOSM subsequently conducted the Day Care Provider Fruit and Vegetable Study with the objectives of determining the opinions and current practices of day care providers with regard to the incorporation of fruits and vegetables into the menus at their facilities. This report includes data from 714 interviews conducted from July 24, 2008 to August 9, 2008.

Of the 714 interviews, 444 were conducted with licensed/registered home care providers and 270 with providers at child care centers. The responses of these participants were each analyzed as part of the whole, as well as individually, to determine whether or not there were any significant differences between these two groups or between their practices.

SOSM's charge was to suggest potential policies to be implemented by the Texas Department of Agriculture with regard to providing healthy snacks to young children.

Additional objectives of the study are listed below.

- Objective #1: explore current meal/snack time practices at day care facilities for children under the age of 10
- Objective #2: determine what types of fruits and vegetables are purchased and served to children as snacks at day care facilities
- Objective #3: learn what types of food preparation/packaging (canned, frozen, fresh, dried) are preferred most often when purchasing fruits and vegetables for the children's snacks, and determine how often whole-grain products are included in meals/snacks at day care facilities
- Objective #4: understand respondents' impressions/opinions of current day care food service practices (including feeding and educating) and family feeding practices
- Objective #5: determine awareness and usage of the Zoby program offered by the Child and Adult Care Food Program (CACFP) and WIC
- Objective #6: learn what partnerships day cares have forged with different organizations, how the current CACFP program has impacted day care centers, and how changes in the programs would impact day care centers
- Objective #7: determine what additional training related to food service and education day care workers would like to receive



Data Collection

SOSM conducted a total of 714 telephone interviews with day care providers in specific markets across the state of Texas. These interviews were conducted from July 24, 2008 to August 9, 2008.

In order to participate in the study, respondents were required to meet the following criteria.

- Must appear on the list of day care centers located in the state of Texas that receive USDA subsidies to offer snacks to preschool-aged children
- Must currently provide child care services for children 10 years of age or younger
- Must provide snacks to children who receive care at the respondent's facility

Additionally, quotas were implemented by metropolitan area to ensure that the overall demographic representation of the survey was consistent with current Census data.

The ratio of dials per survey completed was 9:1, and the average survey length was 20 minutes.

Response Rate

The response rate for this study was 21.4%, according to the standard AAPOR RR3 calculation:

$$\text{Cat 1} / (\text{Cat 1} + \text{Cat 2} + e(\text{Cat 3})),$$

where $e = (\text{Cat 1} + \text{Cat 2} / \text{Cat 1} + \text{Cat 2} + \text{Cat 4})$.

Final dispositions about the surveys are presented in the following table.

Final Dispositions

Eligible, Interview (Category 1)	
Completed	714
Eligible, No Interview (Category 2)	
Refused to participate	38
Unknown Eligibility, No Interview (Category 3)	
Telephone always busy	242
No answer	800
Call blocking	71
Language problem	94
Unknown if eligible provider at telephone number	1,657
Not Eligible, No Interview (Category 4)	
Fax/data line	46
Nonworking number	469
No eligible provider at telephone number	69
Quota filled	181



Factor Analyses

As mentioned in the detailed findings, a number of factor analyses were run on the data in an attempt to reduce large multi-item batteries to fewer dimensions. One such application concerned the questions on children's eating habits outside of the centers.

Overall, a main factor emerged that can best be described as a clustering of items that have to do with what can be called "center strengths," such as providing lessons about nutrition and paying attention to what foods the children like. A second factor that emerged focuses on the children's overall outside food provision and relates to the lack of nutrition afforded to children from outside of the center. A final factor is generally focused on cost concerns.



Factors and Factor Loadings

Items	Center Strengths	Overall Outside Food Provision	Cost Concerns
We have regular lessons for our preschoolers about healthy eating.	.743		
At our center we monitor what the children like as snack foods, and take that into consideration when menu-planning.	.719		
We have many lessons, toys, and activities to guide our teaching about healthy eating.	.715		
Child care providers like me spend more time with kids than their parents do and probably know what foods they like.	.627		
Parents are often surprised to hear their children eat certain foods at child care because they think they do not like those foods.	.599		
Children often come to school with fast-food breakfasts from places like McDonald's.		.761	
Parents often send their children to child care with junk food or sweets.		.671	
Most parents today do not know how to properly feed their children.		.571	
Children need to eat more at child care on Fridays and Mondays because they probably do not get enough of the right foods at home over the weekend.		.565	
Many children are hungry when they arrive in the morning.		.364	
Most families today do not eat dinner together.		.279	
The CACFP does not pay enough to cover snacks, and I spend more than I receive from them to offer healthy snacks.			.661
In the evenings, parents often wait outside until their children finish their evening meal rather than take them home for dinner.			.639
Many children eat their only real meals at child care centers like mine.			.484
Most parents do not introduce fruits and vegetables to their children.			.336

Also as detailed in the findings, a factor analysis was run on the training battery, with the following results.



Factor Analysis on Training

Training Events and Tools	Indirect Training	Direct (Interactive) Training
Activities and lesson plans	.818	
Recipes/menu suggestions	.744	
Toys and learning tools	.738	
Child nutrition needs	.643	
Meetings with other child care providers to discuss healthy eating		.826
One-on-one technical assistance		.798
Cooking conferences and demonstrations		.742
Kitchen math for cooks		.551



METHODOLOGY –PARENTS AND CHILDREN’S DIETARY HEALTH SURVEY

The Texas Department of State Health Services (DSHS) contracted SUMA/Orchard Social Marketing, Inc. (SOSM) to conduct an evaluation of food service practices for children among parents and day care centers. This study focused on parents and the incorporation of recommended fruit and vegetable servings when providing meals for children.

Specifically, SOSM’s charge was to suggest potential policies to be implemented by the Texas Department of Agriculture with regard to provision of healthy snacks to young children. Therefore, the primary objective of this telephone survey was to gauge parents’ awareness of the health benefits of eating the recommended number of servings of fruits and vegetables on a daily basis.

Specifically, the study examined the following topics.

- Knowledge about proper storage and preparation of fruits and vegetables
- Perceptions of the cost of purchasing fresh fruits and vegetables
- Cultural norms and practices regarding preparing and serving fruits and vegetables
- Barriers to purchasing and/or preparing fruits and vegetables
- Preferred ways of learning about food preparation
- Ways of teaching children the importance of fruits and vegetables
- Best methods for distributing information about fruits and vegetables
- Awareness of appropriate numbers of servings of fruits and vegetables to babies, toddlers, and young children
- Barriers to providing healthy snacks to young children
- Perceptions about purchasing and consuming local produce
- Knowledge of community resources that increase access to fresh fruits and vegetables
- Awareness of and barriers to other obesity-prevention factors, including eating whole grains, limiting sweetened beverages, and being physically active

Methodological Overview

- A total of 1,980 interviews were conducted with parents.
- Of the interviewees, 368 were at or above the federal poverty level (FPL).
- The remaining 1,603 were below the FPL.

In order to participate in the study, respondents were required to meet the following criteria.

- Have at least one child 10 years of age or younger
- Not work in market research, advertising, or any other type of media
- Make decision regarding what their children eat



Additionally, quotas were implemented to ensure demographic representation overall relative to current Census data by:

- Metropolitan area
- Language of interview
- Ethnic background

The ratio of dials per survey completed was 48:1, and the average survey length was 15 minutes.

Response Rate

The response rate for this study was 21.4%, according to the standard AAPOR RR3 calculation:

$$\text{Cat 1} / \text{Cat 1} + \text{Cat 2} + e(\text{Cat 3}),$$

where $e = (\text{Cat 1} + \text{Cat 2} / \text{Cat 1} + \text{Cat 2} + \text{Cat 4})$.

Final dispositions about the surveys are presented in the following table.

Final Dispositions

Eligible, interview (Category 1)	
Complete	1,980
Eligible, no interview (Category 2)	
Refused to participate	180
Broke off	280
Unknown eligibility, no interview (Category 3)	
Telephone always busy	2,828
No answer	14,485
Answering machine	33,772
Call blocking	871
Housing unit, unknown if respondent is eligible	2,643
No screener completed	15,797
Not eligible, no interview (Category 4)	
Fax/data line	999
Nonworking number/disconnect	11,540
Disconnected number	1,323
No eligible respondent	8,318
Quota filled	645
TOTAL	95,661



Scaling and Computed Variables

A number of derived variables were generated in this report, primarily to develop more understandable outcomes and to combine measures when the data supported such combinations and when there was some face validity for doing so.

Juice Compared to Soft Drinks

The first derived variable was the “Juice Compared to Soft Drinks” measure, which was ultimately coded into five overarching categories:

1. At Least More Juice Than Soft Drinks/Four Times or More Juice Than Soft Drinks
2. Two Times More Juice Than Soft Drinks
3. Equal Amounts of Juice and Soft Drinks
4. Two Times More Soft Drinks Than Juice
5. At Least Four Times or More Soft Drinks Than Juice

The measure was developed in a number of steps. The first was to take Questions 18a and 18c (*Again, thinking of your oldest child age 10 or younger, how often does he/she drink 100% fruit juice/soft drinks, Kool-Aid, Gatorade, Sunny Delight, or other fruit drinks or punches?*) and conduct a standard recoding of the original ordinal measure into an interval measure. Specifically, a “per day” interval measure was created by coding “more than once per day” = 2, “daily” = 1, “a few times per week” = .5, “rarely” = .05, and “never” = 0. Although this is just a rough approximation of actual consumption, it does provide excellent comparative data, since both the measure for juice and the measure for soft drinks were recoded in the same fashion.

The second step was to compute a new variable in which the soft drinks: juice ratio was calculated by dividing the juice-per-day variable by the soft-drinks-per-day variable. Finally, this raw variable was coded into categories: Any number from 0 to .29 = four times or more juice than soft drinks, .5 = two times more juice than soft drinks, 1 = equal amounts of juice and soft drinks, 2 = two times more soft drinks than juice, and scores of 3 or above = four times more soft drinks than juice.

Reasons for Not Eating Fruits and Vegetables: Summative Scales

As detailed in this report, many reasons were probed for why respondents did not eat more fruits and vegetables. Thus, to simplify analysis, the need arose to reduce this large number of reasons to summative reasons. As is common for such a task, factor analysis was used to explore whether the data provided statistical justification for the existence of underlying factors to these reasons.

Overall, the factor analysis supported the expectation that a number of reasons would load onto an “availability” dimension and others would load onto a “preparation” dimension. Still others would load onto a “taste” dimension. No other clear dimensions were uncovered, so these were



the only three scales to be computed. (However, a fourth dimension—“expense”—was added as another obvious driver of low fruit and vegetable consumption. Nevertheless, this dimension was based on the single reason “too expensive” and not on a derived scale of multiple measures.)

Factor Matrix and Loadings

	Availability	Preparation	Safety
Not available in my neighborhood	.728		
Not available in restaurants	.711		
Not available at work	.517		
They take too much time to prepare		.525	
They are messy		.475	
Not sure how to prepare		.463	
Not in the habit		.221	
Not all family members like taste			.813
Family members picky			.797

Extraction Method: principal component analysis. Rotation Method: Varimax with Kaiser normalization.
A rotation converged in 7 iterations.

Based on these results, simple mean-based scales (averaging all measures in each factor together into an average scale, for example an average “availability” score) were derived.

Physical Exercise Locations

Again, in order to reduce the number of analyses required, the extent to which a useful exercise scale could be computed was explored. Questions 29a–29d asked, “Do you use walking trails, parks, playgrounds, or sports fields/public recreation centers/private or membership-only recreation facilities/schools that are open in your community for physical activity?” Chronbach’s alpha was used to assess whether these four measures could be combined into an additive scale. For these four measures, $\alpha = .51$, which is marginal at best, and therefore the scale was computed simply by adding up the number of locations a respondent mentioned as places used for physical activity, ranging from zero to four. Analyses showed this variable to be predictive in expected directions; thus, while the alpha measure was low, the data did support a high degree of construct validity for the measure.



Neighborhood Quality

The survey asked about a number of measures associated with neighborhood quality:

Question 30a: Overall, how would you rate your neighborhood as a place to walk? Would you say your neighborhood is a pleasant place to walk?

Question 30b: For walking at night, would you describe the street lighting in your neighborhood as excellent, good, fair, or poor?

Question 30c: Does your neighborhood have sidewalks?

Question 30d: How safe from crime do you consider your neighborhood to be?

Question 30e: Generally speaking, would you say most people in your neighborhood can be trusted?

These questions were all recomputed onto a 1–5 scale. Questions 30a and 30d were originally scaled from 1 to 5, while the scale for Question 30b was originally 1–4 and had to be recoded to spread to a maximum value of five. Questions 30c and 30e were dichotomous, and therefore “no” = 1 and “yes” = 5 in the recode.

Chronbach’s alpha was again used to gain statistical justification for combining these five variables into an overall neighborhood quality measure. Alpha was acceptable at .62, and thus the five measures were averaged into a single neighborhood quality score.



Appendix C

Instruments



EDITED: _____
EDITED PICK-UPS: _____
VALIDATED: _____
MONITORED: _____

START TIME: _____

CCR# 10-3391

7/23/08

DRAFT #8

1- 2- 3- 4-

Child Care Provider
Telephone Survey
Health Eating Habits Baseline Study for SNAP

Name: _____

Phone # () _____

Interviewer: _____

Date: _____

ASK TO SPEAK TO THE NAME ON THE LIST

If person is not available ask when would be a good time to call back.

Hello, my name is _____ with Creative Consumer Research. We are conducting a market research study and would like to include your opinions. This research is being conducted on behalf of a group of state-level programs funded by the USDA, including WIC, Food Stamps, CACFP, the Agricultural Extension, and others. I want to assure you that we are not selling anything, and your responses will be kept entirely confidential.

A. Can you hear me clearly?

Yes..... 1

No..... 2 (SPEAK LOUDER AND CONTINUE THE SURVEY. IF STILL CANNOT HEAR, OFFER TO CALL BACK LATER AND SCHEDULE A TIME)

- B. In what city do you live? (IF RESPONSE NOT ONE OF THE CITIES LISTED BELOW ASK) What major city are you close to or within a reasonable driving distance? (CHECK QUOTAS)

Abilene	1	McAllen-Brownsville-	
Harlingen	11		
Amarillo	2	Odessa-Midland	12
Austin	3	San Angelo	13
Beaumont-Port Arthur	4	San Antonio	14
Corpus Christi	5	Sherman-Ada	15
Dallas Ft. Worth	6	Texarkana	16
El Paso	7	Tyler-Longview	17
Houston/Galveston	8	Victoria	18
Laredo	9	Waco	19
Lubbock	10	Wichita Falls	20

DO NOT READ Other ()

(IF NOT LOCATED NEAR ONE OF THESE, THANK, TERMINATE AND TALLY___)

- C. Would you prefer to conduct this interview in....?

English.....1
 Spanish.....2
 Other_____ (TERMINATE)

1. Does your organization provide child care for children 10 and under?

Yes.....1 (CONTINUE)
 No.....2 (TERMINATE)

2. Does your organization or home provide meals for the children in your care?
- Yes (CONTINUE)..... 1
No (CONTINUE)..... 2
3. Does your organization or home provide snacks for the children in your care?
- Yes (CONTINUE)..... 1
No (TERMINATE)..... 2
4. Are you the primary person responsible for deciding, purchasing or distributing snack foods to the children in your child care center?
- Yes (CONTINUE)
No (Ask, "May I please speak to that person now?" If not available, gather call-back information and TERMINATE)
5. What is your role in the organization and/or day care?
- Director..... 1
Assistant Director..... 2
Teacher..... 3
Cook..... 4
Other (SPECIFY) 5
6. Is your organization considered: (CHECK QUOTAS)
- A licensed/registered home 1 (IF HOME, SKIP TO Q8a)
A child care center 2 (CONTINUE)
- 7a. How many child-care centers does your company operate?
- One 1 (SKIP TO Q8a)
Two 2 (IF TWO OR MORE, GO TO 7a)
Three 3
Four or More..... 4
- 7b. Are all of the centers your company operates located in the State of Texas?
- Yes..... 1 (SKIP TO Q8a)
No..... 2 (CONTINUE)

7c. In what other states are your centers located? (MULTIPLE RESPONSES ACCEPTED)

New Mexico..... 1
Oklahoma..... 2
Louisiana 3
Other (SPECIFY)..... 4

8a. How many children do you currently serve at this facility?

Less than 12 1
13-20 2
21-50 3
51-100..... 4
101-150 5
151-200..... 6
Beyond 200 7

8b. Approximately what percentage of the families you serve do you think participate in government programs such as Medicaid, Food Stamps, TANF or WIC? Would you say:

0% 1
1-4%..... 2
5-10% 3
10-25%..... 4
25-50% 5
50-75% 6
75-100%..... 7
(Do not read) Don't know 8

8c. Are one or more of the children in your care your own children?

Yes..... 1
No..... 2

- 8d. Approximately what percentage of the children you serve are under age 5?
- | | |
|-------------------------------|---|
| 0% | 1 |
| 1-4%..... | 2 |
| 5-10% | 3 |
| 10-25%..... | 4 |
| 25-50% | 5 |
| 50-75% | 6 |
| 75-100%..... | 7 |
| Don't know(DO NOT READ) | 8 |
- 8e. Does your child care center serve children under age 1?
- Yes..... 1 (CONTINUE)
- No..... 2 (SKIP TO Q9)
- 8f. What percentage of your infants receive infant formula from the childcare center?
- | | |
|--------------------------------|---|
| 0% | 1 |
| 1-4%..... | 2 |
| 5-10% | 3 |
| 10-25%..... | 4 |
| 25-50% | 5 |
| 50-75% | 6 |
| 75-100%..... | 7 |
| (Do not read) Don't know | 8 |
- 8g. Do any moms at your facility bring breast milk for their infants?
- Yes..... 1 (CONTINUE)
- No..... 2 (SKIP TO Q9)
- 8h. Approximately what percentage of moms who have infants bring breast milk for their infants?
- | | |
|--------------------------------|---|
| 1-4%..... | 1 |
| 5-10% | 2 |
| 10-25%..... | 3 |
| 25-50% | 4 |
| 50-75% | 5 |
| 75-100%..... | 6 |
| Don't know (DO NOT READ) | 7 |
9. Not including snacks, what do you serve per day? Would you say:
- | | |
|--|---|
| Lunch only | 1 |
| Breakfast and Lunch | 2 |
| Lunch and Dinner/Supper (the Evening Meal) | 3 |

All three meals, Breakfast, Lunch and Dinner..... 4
 None..... 5

10. How often do you serve snacks per day? (SINGLE RESPONSE)

Afternoon snack only 1
 Morning and afternoon snack..... 2
 Morning, afternoon and evening snacks 3
 Other (DESCRIBE)..... 4

11. Which of the following best describes who prepares meals and snacks:

I prepare all the meals myself.....1
 I prepare meals with the help of another person.....2
 I have a part time cook.....3
 I have a full-time cook.....4
 Our operation has/operations have more
 than one full-time cook5
 Other (please describe).....6

12. Which of the following best describes the way meals and snacks are prepared at your facility:

I prepare meals at home to serve at my
 Licensed/registered home.....1 (SKIP TO Q14)
 I prepare meals at home to serve at my center,
 which is located elsewhere2 (SKIP TO Q14)
 We prepare meals at the center primarily
 using a microwave or warming oven.....3 (ASK Q13a)
 We have a fully operational commercial kitchen.....4 (SKIP TO Q14)
 Other (SPECIFY).....5 (SKIP TO Q14)

(IF MIRCROWAVE OR WARMING ONLY IN Q12, ASK)

13a. Do you have the option to prepare meals on a stovetop?

Yes 1(CONTINUE)
 No 2(SKIP TO Q14)

13b. What are the reasons you do not use a stovetop? (MARK ALL THAT APPLY)

- Local fire codes prohibit stovetop preparation without vent-hoods.....1
- We cannot afford to retrofit our kitchen to meet fire code standards2
- Health department regulations are difficult to comply with in a
center our size3
- We do not have enough staff/time to prepare stovetop meals 4
- It is just easier to microwave packaged frozen foods.....5
- It is cheaper to purchase microwave foods6
- We do not have enough storage for everything we need to
prepare fresh meals7
- The children like microwave foods better.....8
- Other (DESCRIBE) _____9

14. How often does someone go grocery shopping for foods to serve at your registered home or center? Would you say:

- More than once per week..... 5
- Once per week..... 4
- Once every 10 days to two weeks..... 3
- Twice a month..... 2
- Monthly..... 1
- A wholesaler or supplier delivers our food..... X
- Other (SPECIFY) _____ Y

15. Now I would like for you to think about the types of foods you serve to the children under age 10 at your child care center **DURING SNACK TIME ONLY**. How many times during the past week did the children under 10 eat:

Item	0	1	2	3	4	5	6	7	Don't Know	Refused
Apples, Applesauce, or Pears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bananas and Plantains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cantaloupe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grapes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oranges (e.g., clementines, tangerines, mandarins, navels)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peaches or apricots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pineapple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kiwi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Papaya	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lemons or limes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Berries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dried fruit, raisins, or prunes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fruit cocktail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Broccoli	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carrots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cauliflower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tomatoes, tomato sauce, or salsa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cucumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jicama	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lettuce or salad greens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spinach or other dark greens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
French fries, fried potatoes, tater tots, home fries, or hash browns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avocado	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. When shopping for vegetables and fruits for your childcare facility, how likely are you to purchase fruits and vegetables in the following ways? Would you say you are very likely, somewhat likely, somewhat unlikely or very unlikely to purchase...? (READ EACH ONE AT A TIME) (READ LIST)

	<u>VERY LIKELY</u>	<u>SOMEWHAT LIKELY</u>	<u>SOMEWHAT UNLIKELY</u>	<u>VERY UNLIKELY</u>	<u>DEPENDS ON THE SEASON</u>
Canned	5	4	3	2	1
Frozen	5	4	3	2	1
Fresh	5	4	3	2	1
Dried	5	4	3	2	1

17. How often are whole grain products, such as oatmeal, brown rice, 100% whole wheat bread, 100% whole-wheat tortillas or corn tortillas, included in the meals you prepare for your childcare facility? Would you say:

Multiple times per day..... 5
 Daily 4
 A few times per week 3
 A few times per month..... 2
 Rarely..... 1
 Never..... X
 DK/Refused (DO NOT READ)..... Y

18. What kind of bread do you usually purchase for your facility? (DO NOT READ LIST, ACCEPT MULTIPLE RESPONSES)

White bread..... 1
 Whole wheat bread..... 2
 Whitewheat bread such as
 Iron Kids and Bimbo..... 3
 Multi-grain..... 4
 Oatmeal..... 5
 Rye..... 6
 Pumpernickel..... 7
 Other (SPECIFY) _____ 8

20. When you prepare snacks for your children in your childcare, would you say that fruits and vegetables are...? (READ LIST)

Always part of the snack..... 4 (SKIP TO Q22)
Sometimes part of the snack..... 3
Rarely part of the snack..... 2
Never part of the snack..... 1

21. When thinking about the amount of fruits and vegetable you serve to the children in your child care center, what would you say the reasons are that you do not offer more? (DO NOT READ, ACCEPT MULTIPLE ANSWERS)

Too Expensive 1
Not enough storage..... 2
Fruits & vegetables don't keep/we only shop or
take delivery once per week..... 3
Don't order because the quality is unpredictable..... 4
I order/buy them in season but not out 5
Too much chopping/preparation 6
Not filling enough for the children..... 7
Not sure how to tell if the quality is good 8
Not sure how to select 9
Children don't like them/too much waste 10
Take too much time/staff to prepare and cook..... 11
Not enough variety 12
Children don't like the taste 13
Don't have them available, lack of access 14
They are messy 15
Many children have food allergies 16
Concerned about safety: salmonella, pesticides, etc. 17
I believe I serve enough now 18
The quality is not good at my grocery store 19
I like to offer a variety of snacks 20
Other (specify) 21
Don't know X
Refused (DO NOT READ)

22. In your opinion, do you think the children get the right amount of fruits *and* vegetables at child care now, or do you think they should eat more?
- Eat right amount 1
 Should eat more..... 2
 Don't know/not sure..... 3
 Refused 4
 Other (SPECIFY)..... 5
23. Other than infant formula or breast milk, how often do you serve milk to children at your child care center?
- With every meal..... 4
 At least once per day..... 3
 A few times per week..... 2
 Weekly..... 1
 Don't know..... X
 Refused..... Y
24. What kind of milk do you usually serve to children over age 2? (ALLOW MULTIPLE RESPONSES)
- Skim/fat free..... 1
 1%/low fat..... 2
 2%/reduced fat..... 3
 Whole milk..... 4
 Soy milk..... 5
 Other (specify)..... 6
 Don't know..... 7
 Refused..... 8
- 25a. How often do you serve drinks like Kool-Ade, Gatorade, Sunny Delight, or other fruit drinks or punch? Would you say:
- Daily..... 6
 A few times per week..... 5
 Weekly..... 4
 A few times per month..... 3
 Monthly 2
 Never..... 1
 Don't know..... X
 Refused..... Y
- 25b. How often do you serve 100% fruit juice? Would you say:
- Daily..... 6

A few times per week.....	5
Weekly.....	4
A few times per month.....	3
Monthly	2
Never.....	1
Don't know.....	X
Refused.....	Y

26. I am going to read some statements to you. Please tell me how true you think each statements is. Do you feel the statement is very true, somewhat true, neither true nor untrue, somewhat untrue or very untrue.

	Very True	Somewhat True	Neither True nor Untrue	Somewhat Untrue	Very Untrue
Children often come to school with fast food breakfasts from places like McDonalds					
Many children are hungry when they arrive in the morning					
Child care providers like me spend more time with kids than their parents and probably know what foods they like and dislike better					
Parents are often surprised to hear their children eat certain foods at child care because they think they do not like those foods					
In the evenings, parents often wait outside until their children finish their evening meal rather than take them home for dinner					
Children need to eat more at child care on Fridays and Mondays because they probably do not get enough of the right foods at home over the weekend					
Parents often send their children to child care with junk food or sweets					
Many children eat their only real meals at child care centers like mine					
	Very True	Somewhat True	Neither True nor Untrue	Somewhat Untrue	Very Untrue
Most parents do not introduce fruits and vegetables to their children					
Most families today do not eat dinner together					
The CACFP does not pay enough to cover snacks and I spend more than I receive from them to offer healthy snacks					
Most parents today do not know how to properly feed their children					
At our center we monitor what the children like for snack foods, and take that into consideration when menu-planning					
We have regular lessons for our pre-schoolers about healthy eating, e.g. food pyramids, colors or foods, etc.					
We have many lessons, toys and activities to guide our teaching about healthy eating					

27. How often do the children at your child care center watch TV or DVDs while they are at the center? Would you say:
- | | |
|----------------------------|---|
| Daily..... | 6 |
| A few times per week..... | 5 |
| Weekly..... | 4 |
| A few times per month..... | 3 |
| Monthly | 2 |
| Never..... | 1 |
| Don't know..... | X |
| Refused..... | Y |
28. How often do the children at your child care center get at least 60 minutes of physical activity during the day? Would you say:
- | | |
|----------------------------|---|
| Daily..... | 6 |
| A few times per week..... | 5 |
| Weekly..... | 4 |
| A few times per month..... | 3 |
| Monthly | 2 |
| Never..... | 1 |
| Don't know..... | X |
| Refused..... | Y |
29. The CACFP Program and the Texas WIC program recently sent out 2 DVDs a children's book and a magnet titled The Adventures of Zobey. Did your child care center receive the Zobey materials?
- | | |
|--------------------------|------------------|
| Yes..... | 1 |
| No..... | 2 (SKIP TO Q33a) |
| Don't know/not sure..... | 3 (SKIP TO Q33a) |
30. Have you used the Zobey materials with children at your center?
- | | |
|--|--------------|
| Yes..... | 1 (CONTINUE) |
| No..... | 2 |
| Not yet, but we plan to use them in the future. | 3 |
| Not sure..... | 4 |
- } (SKIP TO Q32)

31a. How useful did you find the Zobey materials at helping to encourage your children to be physically active? Would you say...?

Very useful..... 5
Somewhat Useful..... 4
Neutral 3
Not useful..... 2
Not at all useful 1

31b. How useful did you find the Zobey materials to encourage healthy eating habits? Would you say...?

Very useful..... 5
Somewhat Useful..... 4
Neutral 3
Not useful..... 2
Not at all useful 1

} (SKIP TO 33b)

32. Why haven't you used the Zobey materials at your child care center?

Don't have room for the kids to dance while they watch the DVD 1
Doesn't fit with our curriculum 2
We don't watch TV at the child care center 3
I watched it and didn't think the kids would like it. 4
Couldn't find the lesson plans online to use with the materials 5
Other (SPECIFY)..... 6

33a. Would you like to receive materials like the Zobey DVDs, children's books or magnets from WIC or the CACFP program in the future?

Yes..... 1
No..... 2
Don't know/not sure..... 3

(SKIP TO Q34)

- 33b. Would you like to receive additional materials like the Zobey DVDs, children's books or magnets from WIC or the CACFP program in the future?

Yes..... 1
 No..... 2
 Don't know/not sure..... 3

34. Which of the following best describes the way your pre-schoolers eat?

They eat together with me at a kitchen table in my home..... 1
 They eat on the floor in front of a television set in my home 2
 They eat family style with their teachers, in their classrooms 3
 They eat cafeteria style, like at school..... 4
 Other (SPECIFY)..... 5

35. How helpful would each of the following things be to help you get your preschoolers to eat more fruits and vegetables? Would you say it would be very helpful, somewhat helpful, not very helpful, or not at all helpful? How helpful would (____) be in getting the children to eat more fruits and vegetables?

	VERY <u>HELPFUL</u>	SOMEWHAT <u>HELPFUL</u>	NOT VERY <u>HELPFUL</u>	NOT AT ALL <u>HELPFUL</u>
a. Recipes	4	3	2	1
b. Lesson plans	4	3	2	1
c. (stated below) More training for our cooks	4	3	2	1
d. More information about the nutritional value of fruits and vegetables	4	3	2	1
e. Information on storage of fruits and vegetables	4	3	2	1
f. DVDs, videos, or books for children showing healthy foods, including fruits and vegetables	4	3	2	1
g. Cheaper products	4	3	2	1
h. Ideas for educating young children	4	3	2	1
i. A newsletter via the Internet	4	3	2	1
j. An Internet site with recipes	4	3	2	1
k. Other (SPECIFY).....	4	3	2	1

36. Have you ever partnered with any of the following programs to receive nutrition education materials for parents or your staff?

	<u>YES</u>	<u>NO</u>
WIC program	1	2
Texas A&M Extension or Texas AgriLife Extension	1	2
Food Bank or Food Pantry.....	1	2
CACFP staff	1	2
Other (SPECIFY).....	1	2

37. Have you ever partnered with any of the following programs to provide eligibility information for parents or your staff?

	<u>YES</u>	<u>NO</u>
WIC program	1	2
Medicaid, Food Stamps or TANF	1	2
Food Bank or Food Pantry.....	1	2
Other (SPECIFY).....	1	2

38. Currently the Child and Adult Care Food Program specifies that snacks must include two of the four food groups. What would be your reaction to a change of policy which said that EVERY SNACK must include AT LEAST ONE FRUIT OR VEGETABLE? (DO NOT READ LIST, ACCEPT MULTIPLE RESPONSES)

We would simply serve more juice.....	1
We could not afford it.....	2
I think it would be positive/good for the children.....	3
We would need more ideas for snacks.....	4
We would waste even more food.....	5
My cook would quit/go crazy.....	6
Other (SPECIFY).....	7

39. Of the following potential concerns associated with this policy change, how likely is it that you would face the following? (Very likely, somewhat likely, neutral, somewhat unlikely, or very unlikely)

	<u>Likely</u>	<u>Very</u> <u>Likely</u>	<u>Somewhat</u> <u>Neutral</u>	<u>Somewhat</u> <u>Unlikely</u>	<u>very</u> <u>Unlikely</u>	
a. We would not have enough money for snacks	1	2	3	4	5	
b. We would not have enough storage	1	2	3	4	5	
c. We do not have the proper facility to serve these types of snacks		1	2	3	4	5
d. Our children would be hungrier		1	2	3	4	5
e. Our cook would need additional training	1	2	3	4	5	
f. I would have to take delivery more often from my suppliers		1	2	3	4	5
g. I would have to pay the cook more because it would take them more time	1	2	3	4	5	
h. More food would go to waste	1	2	3	4	5	

40. If this policy change went into effect, how long would it take you to adjust your snack menus to the change? (DO NOT READ LIST)

Right away..... 1
 Within a week or two..... 2
 Within a month..... 3
 Months..... 4
 Other comments (SPECIFY)..... 5

41a. Currently, the Texas Department of Agriculture offers training on the set-up of a qualifying program for CACFP. What additional training would you like to have? (DO NOT READ LIST) ACCEPT MULTIPLE RESPONSES.

(FOR ALL NOT LISTED IN Q41a ASK)

41b. Would you like to have additional training in : (READ LIST)

	<u>41A Unaided</u>	<u>41b Aided</u>
Training on kitchen math targeted for our cooks	1	1
Training on child nutritional needs	2	2
Recipes and menu suggestions	3	3
Children's activities or lesson plans	4	4
Toys or learning tools for kids	5	5
A conference offering displays and cooking demonstrations.....	6	6
One-on-one technical assistance at our center.....	7	7
Opportunities to meet with other child care providers to discuss nutritional issues	8	8

42. Which of the following best describes your age? Would it be...?

18- 24..... 1
 25 - 34..... 2
 35 - 44..... 3

45 – 54..... 4
 55-60 5
 Over 60..... 6
 Refused (DO NOT READ) X

43. What is the highest level of education that you have completed?
 Is it...? (READ LIST)

Less than High School..... 1
 High School Graduate/GED 2
 Some University, Technical
 College, Trade School,
 Beauty School or College/
 Vocational School..... 3
 University Graduate 4
 Attended Graduate School..... 5
 Completed Graduate School 6
 Refused (DO NOT READ) X

44. Where do you have access to the Internet, if at all? Would it be...?
 (READ LIST AND CHECK ALL THAT APPLY)

Home 1
 School 2
 Work at the center 3
 Family or Friends House 4
 Community Library 5
 I don't have access to Internet 6
 Other (Specify)_____ 7

45. Are you the owner of this Center?

Yes..... 1
 No..... 2

46. Does this Center use a contractor to file paperwork?

Yes..... 1

No..... 2

THAT CONCLUDES OUR SURVEY. THANK YOU VERY MUCH FOR YOUR PARTICIPATION.

(CONFIRM RESPONDENT NAME, AREA CODE AND TELEPHONE NUMBER)

END TIME: _____

EDITED: _____
EDITED PICK-UPS: _____
VALIDATED: _____
MONITORED: _____

START TIME: _____

CCR# 10-3349

7/21/08 _____

DRAFT #11

1-

2-

3-

4-

PARENT PHONE SURVEY GUIDE
HEALTHY EATING HABITS BASELINE STUDY FOR SNAP

NAME: _____ PHONE #: (____) _____ 5-

6-

INTERVIEWER: _____ DATE: _____

ASK TO SPEAK TO MALE OR FEMALE HEAD OF HOUSEHOLD.

Hello, my name is _____ with Creative Consumer Research. Today we are calling on behalf of the State of Texas to conduct a market research study regarding grocery shopping and children's eating habits. We are not selling anything and would like to include your opinions. Your responses will be combined with the answers from other people across the state. Your opinions are very important to us and the information we gather will help the quality of life for all Texans.

A. Can you hear me clearly?

Yes1

No2

(SPEAK LOUDER AND CONTINUE WITH SURVEY.
IF STILL CANNOT HEAR, OFFER TO CALL BACK
LATER AND SCHEDULE A TIME _____.)

1. In what city do you live? (IF RESPONSE NOT ONE OF THE CITIES LISTED BELOW ASK)
What major city are you close to or within a reasonable driving distance? (CHECK QUOTAS)

Abilene	1	McAllen-Brownsville-Harlingen	11
Amarillo	2	Odessa-Midland	12
Austin	3	San Angelo	13
Beaumont-Port Arthur	4	San Antonio	14
Corpus Christi	5	Sherman-Ada	15
Dallas Ft. Worth	6	Texarkana	16
El Paso	7	Tyler-Longview	17
Houston/Galveston	8	Victoria	18
Laredo	9	Waco	19
Lubbock	10	Wichita Falls	20

DO NOT READ Other ()

(IF NOT LOCATED NEAR ONE OF THESE, THANK, TERMINATE AND TALLY____)

2a. Would you prefer to conduct this interview in...?

English1
Spanish2

CHECK QUOTAS

2b. Which of the following best describes your race? (READ LIST)

White/Caucasian.....	1	} CHECK QUOTAS
African American/Black	2	
Pacific Islander.....	3	
Hispanic/Latino.....	4	
Native American	5	
Asian	6	
(IF ASIAN, ASK TO SPECIFY THEIR COUNTRY OF ORIGIN_____)		
Other (SPECIFY).....	7	
Refused (DO NOT READ).....	8	

2c. Do you consider yourself to be of Hispanic/Latino descent?

Yes.....1 → ASK 2d
No.....2 → SKIP TO Q3

2d. How long have you been in the United States?

Less than 1 year1
1-3 years2
3-5 years.....3
5-10 years.....4
More than 10 years5

3. First, are you the...?

Male head of household.....1
Female head of household2

4. Have you or has any member of your family ever worked in any of the following industries? (READ LIST)

Market research	()	}	THANK, TERMINATE & TALLY ____ CONTINUE
Advertising.....	()		
Media (Television, Radio, Newspaper, etc.).....	()		
None.....	()		

(IF RESPONSE IN Q5 IS '4', THANK, TERMINATE & TALLY __; IF RESPONSE IS '2 OR 3' BUT NOT '1', THANK, TERMINATE & TALLY __)

5. Which of the following ages best describes the children in your household?

10 and under.....	1
11 – 14 yrs.....	2
15 – 17 yrs.....	3
No children in the home.....	4

6. What are the specific ages of your child/children under the age 10? (ACCEPT MULTIPLE RESPONSES)

Less than 12 months.....	1	(IF RESPONSE IS ONLY '1' IN Q6, THANK, TERMINATE & TALLY __)
1-2 yrs	2	
3-4 yrs.....	3	
4-5 yrs.....	4	
5-6 yrs.....	5	
6-7 yrs.....	6	
7-8 yrs.....	7	
8-9 yrs.....	8	
9-10 yrs.....	9	

7. Who makes most of the decisions about what the children eat?

Self.....	1	(CONTINUE)
Both Parents	2	(CONTINUE)
Child's other parent/guardian.....	3	(ASK TO SPEAK TO THIS PERSON, REINTRODUCE THE PURPOSE OF THE STUDY AND CONTINUE WITH QUESTIONS. IF PERSON NOT AVAILABLE, SET A CALL BACK DATE AND TIME) DATE:_____ TIME:_____
Other _____ (SPECIFY)	4	(THANK, TERMINATE, & TALLY __)

8. Including yourself, how many family members are living in your household?

One1 THANK, TERMINATE & TALLY___
 Two2
 Three.....3
 Four.....4
 Five5
 Six6
 Seven or more7

9a. For your family of (REFER TO Q8) is your total household income before taxes above or below (INSERT AMOUNT) per month?
 (CHECK CHART BELOW AND CORRELATE WITH EARNINGS)

Q8 # OF PERSONS IN FAMILY	Q9aMUST EARN BELOWTHE FOLLOWING PER MONTH	ABOVE	BELOW
. 2	\$2,159		
. 3	\$2,714		
. 4	\$3,269		
. 5	\$4,379		
. 6	\$4,934		
. 7	\$5,489		

THE FAMILY MUST BE
AT OR BELOW THE
INCOME LISTED TO
QUALIFY FOR GROUP 1

(IF RESPONDENT QUALIFIES FOR GROUP 1, SKIP TO Q10. IF RESPONDENT'S INCOME IS ABOVE CONTINUE TO Q9b, AND IF HOUSEHOLD INCOME IS \$45,001 OR MORE QUALIFIES FOR GROUP 2. ALL OTHERS TERMINATE.)

9b. Which of the following categories best describes your annual household income for 2007?
 Would it be...? (READ LIST)

Under \$25,0001
 \$25,000 – 34,9992
 \$35,000 – 44,9993
 \$45,000 – 54,9994
 \$55,000 – 64,9995
 \$65,000 – 74,9996
 \$75,000 +7

THANK, TERMINATE & TALLY___

CONTINUE, COUNT TOWARD QUOTA GROUP 2

10. Do you work outside the home?

- Yes, full-time.....1
Yes, part-time.....2
No, I am a full-time
stay-at-home mom/parent.....4
Retired5
Temporarily unemployed6
Refused (DO NOT READ).....7
- } SKIP TO Q12

11. You stated that you work outside the home. Who cares for your child/children when they are not in public school? (READ LIST)

- Child/Children go to a child care center..... 1
Child/Children go to someone's home 2
Child/Children stay with a family member 3
Child/Children attend after school and summer programs only4
Other (SPECIFY)..... 5

For this next series of questions, I would like for you to think about your family's eating habits.

12. Does/Do your child/children attend school and/or child care during the school year?

- Yes1
No2 SKIP TO Q14

13. How often does your child/children purchase or receive free or reduced lunch at school or daycare?

- Daily5
A few times per week4
A few times per month3
Rarely2
Never1

14. During a normal week, how often would you say your family sits down to a meal together at home? Would you say... (READ LIST)

- Daily or almost every day5
Two to three times per week4
Once a week.....3
Rarely2
Never1

15. How often does your family watch television while eating a meal? Would you say: (READ LIST)

Never1
Rarely2
Sometimes3
Often.....4
Always.....5

I would now like to ask some questions about the kinds of food your child/children eat(s). Knowing that different children have different tastes, think only of your OLDEST CHILD AGE TEN OR YOUNGER when answering the following questions.

- 16a. Does he/she eat more than ONE kind of fruit per day? Would you say:

Always	Sometimes	Never	Don't know	Refused
3	2	1	x	y

(IF 'ALWAYS' OR 'SOMETIMES' IN Q16a, ASK Q16b. OTHERWISE SKIP TO Q16c.)

- 16b. How many servings of **fruit** does he/she eat per day?

_____ (NO RANGES. IF UNSURE, ASK FOR BEST ESTIMATE.)

- 16c. Does he/she eat more than one kind of vegetable per day? Would you say:

Always	Sometimes	Never	Don't know	Refused
3	2	1	x	y

(IF 'ALWAYS' OR 'SOMETIMES' IN Q16c, ASK Q16d. OTHERWISE SKIP TO 17a.)

- 16d. How many servings of **vegetables** does he/she eat per day? (open-ended)

_____ (NO RANGES. IF UNSURE, ASK FOR BEST ESTIMATE.)

- 17a. When you prepare meals for your child, would you say that fruits and vegetables are...? (READ LIST)

Always part of the meal.....4
Sometimes part of the meal.....3
Rarely part of the meal.....2
Never part of the meal.....1

17b. When you prepare snacks for your child, would you say that fruits and vegetables are...?
(READ LIST)

Always part of the snack.....4
Sometimes part of the snack3
Rarely part of the snack2
Never part of the snack1

18a. Again, thinking of your oldest child age 10 or younger, how often does he/she drink 100% fruit juice? Would you say...

Multiple times per day.....6
Daily.....5
A few times per week.....4
A few times per month.....3
Rarely.....2
Never.....1
DK/Refused (DO NOT READ).....x

18b. Again, still thinking of your oldest child age 10 or younger, what kind of milk does he/she usually drink? Does your child drink... (READ LIST)

	<u>Yes</u>
Skim/fat free	1
1%/low fat	2
2%/reduced fat	3
Whole milk	4
Soy milk	5
Child doesn't drink milk	6
Don't know (DO NOT READ)	7
Refused (DO NOT READ)	8

18c. How often does he/she drink soft drinks, soda, kool-aid, Gatorade, Sunny Delight or other fruit drinks or punches?

Multiple times per day.....6
Daily.....5
A few times per week.....4
A few times per month.....3
Rarely.....2
Never.....1
DK/Refused (DO NOT READ).....x

19a. Do **you** eat more than ONE kind of fruit per day. Would you say:

Always	Sometimes	Never	Don't know	Refused
1	2	3	4	5

(IF 'ALWAYS' OR 'SOMETIMES' IN Q19a, ASK Q19b. OTHERWISE SKIP TO Q19c.)

19b. How many servings of **fruit** do **you** eat per day?

_____ (NO RANGES. IF UNSURE, ASK FOR BEST ESTIMATE.)

19c. Do **you** eat more than one kind of vegetable per day? Would you say:

Always	Sometimes	Never	Don't know	Refused
1	2	3	4	5

(IF 'ALWAYS' OR 'SOMETIMES' IN Q19c, ASK Q19d. OTHERWISE SKIP TO Q19e)

19d. How many servings of **vegetables** do **you** eat per day? (open-ended)

_____ (NO RANGES. IF UNSURE, ASK FOR BEST ESTIMATE.)

19e. What kind of milk do **you** usually drink? Would you say: (READ LIST)

Skim/fat free	1
1%/low fat	2
2%/reduced fat	3
Whole milk	4
Soy milk	5
I don't drink milk.	6
Don't know (DO NOT READ)	7
Refused (DO NOT READ)	8

19f. How often do **you** drink 100% fruit juice? Would you say:

Multiple times per day.....	6
Daily.....	5
A few times per week.....	4
A few times per month.....	3
Rarely.....	2
Never.....	1
DK/Refused (DO NOT READ).....	x

- 19g. How often do **you** drink soft drinks, soda, kool-aid, Gatorade, Sunny Delight or other fruits drinks or punches?

Multiple times per day.....6
Daily.....5
A few times per week.....4
A few times per month.....3
Rarely.....2
Never.....1
DK/Refused (DO NOT READ).....x

- 20a. How often do you include whole grains such as oatmeal, brown rice, 100% whole wheat bread, 100% whole wheat tortillas or corn tortillas in your meals? Would you say: (READ LIST)

Multiple times per day.....6
Daily.....5
A few times per week.....4
A few times per month.....3
Rarely.....2
Never.....1
DK/Refused (DO NOT READ).....x

- 20b. What kind of bread do **you** usually purchase? (Choose only one)

White bread.....1
Whole wheat bread.....2
Multi-grain.....3
Oatmeal.....4
Rye.....5
Pumpernickel.....6
Other (Specify: _____).....7

21a. What is the main reason your family doesn't eat more fruits and vegetables? (DO NOT READ LIST. ACCEPT ONE RESPONSE.)

21b. Now I would like to read you a list of reasons some parents have given for why their families do not eat more fruits and vegetables. As I read each reason please tell me if you agree or disagree that this is a reason your family does not eat more fruits and/or vegetables. (READ LIST)

		<u>21a</u> <u>UNAIDED</u> <u>REASON</u>	<u>21b</u> <u>AIDED</u> <u>REASON</u>
Too expensive	1	1	
Not sure how to tell if the quality is good/Not sure how to select.....	2	2	
Other people in the family don't like them	3	3	
Take too much time to prepare and cook		4	4
Lots of fruits and vegetables that I'm not sure how to prepare	5	5	
Some family members don't like the taste	6	6	
Not in habit/don't think about it/not used to eating them		7	7
Don't know how to prepare them		8	8
They are not available at work such as in cafeteria, vending machines, food trucks or nearby restaurants	9	9	
They are not available at restaurants		10	10
They are not available in my neighborhood	11	11	
They are messy		12	12
Concerned about safety: pesticides, genetically engineered food		13	13
I believe I eat enough now	14	14	
The quality is not good at my grocery store	15	15	
It is not available from the food pantry or food bank	16	16	

22. Do you agree or disagree with the following statement. It is convenient for you to get good quality fruits and vegetables at stores or markets in your neighborhood.

Agree.....1
Disagree.....2
Don't know.....3
Refused.....4

23. Now I would like for you to think about where you purchase your fruits and vegetables. How often do you purchase fruits and vegetables at a ____? Would you say a few times a week, once a week, a few times per month, once a month, rarely, or never?

	A few times a week	Once a week	A few times per month	Once a month	Rarely	Never
a. Grocery store (includes Wal-Mart).....	1	2	3	4	5	6
b. Farmer's market (a place where multiple farmers bring their produce and sell at one location)	1	2	3	4	5	6
c. Other (SPECIFY).....	1	2	3	4	5	6

24. How important is it to you to purchase fruits and vegetables that are grown _____?
Would you say it's very important, somewhat important, neither important nor unimportant, somewhat unimportant, or not at all important?

	VERY IMPORTANT	SOMEWHAT IMPORTANT	NEITHER IMPORTANT NOR UNIMPORTANT	SOMEWHAT UNIMPORTANT	IMPORTANT AT ALL	NOT
a. In the United States		1	2	3	4	5
b. In Texas		1	2	3	4	5
c. Locally meaning in the specific area around your town		1	2	3	4	5

25. Thinking about fruits and vegetables, how sure are you that (ROTATE Q25a – Q25d)?
Would you say you don't feel sure, feel a little sure, feel fairly sure or feel very sure?

	I DON'T FEEL SURE	I FEEL A LITTLE SURE	I FEEL FAIRLY SURE	I FEEL VERY SURE	DK	REFUSED
a. You can make vegetables in ways that your child/children will like?	1		2	3	4	x y
b. Your child/children will <u>eat</u> the vegetables you serve?	1		2	3	4	x y
c. You can buy more fresh fruit in place of chips, crackers, candy and cookies?	1		2	3	4	x y
d. You can get fruit or vegetables for your child/children instead of french fries when you dine out?	1		2	3	4	x y

- 26a. Are you aware of any advertisements about...

	<u>Yes</u>	<u>No</u>
Increasing fruits and vegetables	1	2
Increasing whole grains	1	2
Drinking reduced fat or low fat milk	1	2
Drinking less sugar sweetened beverages	1	2
(IF NO TO ALL SKIP TO Q27a)		

- 26b. If yes, Where did you hear or see the message? (PROBE FOR location)

TV	1
Billboard	2
Radio	3
Magazine	4
Newspaper	5
Internet	6
Other (specify) _____	7

27a. At the grocery store have you seen any banners, posters, pamphlets or special recipes about ?

	<u>Yes</u>	<u>No</u>
Increasing fruits and vegetables	1	2
Increasing whole grains	1	2
Drinking reduced fat or low fat milk	1	2

27b. How often do you read recipes or pamphlets from the grocery store or take them home with you? Would you say...(READ LIST)

Often.....4
 Sometimes3
 Rarely2
 Never1
 Don't know/not sure (DO NOT READ)x
 Refused (DO NOT READ)y

28. How helpful would each of the following things be to help you eat more fruits and vegetables? Would you say it would be very helpful, somewhat helpful, neither helpful nor unhelpful, not very helpful, or not at all helpful? (ROTATE STATEMENTS)

	Very <u>Helpful</u>	Somewhat <u>Helpful</u>	Not Very <u>Helpful</u>	Not at all helpful
Recipes	4	3	2	1
Information on storage of fruits and vegetables	4	3	2	1
DVDs, videos, or books for children	4	3	2	1
Television advertisements for adults	4	3	2	1
Television advertisements for kids	4	3	2	1
An Internet site with recipes	4	3	2	1
Radio advertisements	4	3	2	1
Billboards	4	3	2	1
Signs at the grocery store	4	3	2	1

Now, I would like to ask a few questions about your community.?

	<u>Yes</u>	<u>No</u>
29a. Do you use walking trails, parks, playground or sports fields in your community for physical activity?	1	2
29b. Do you use any public recreation centers in your community for physical activity?	1	2
29c. Do you use any private or membership-only recreation facilities for physical activity?	1	2
29d. Do you use schools that are open in your community for public recreation activities?	1	2

30a. Overall, how would you rate your neighborhood as a place to walk? Would you say your neighborhood is a (READ LIST) place to walk?

Very pleasant.....5
Somewhat pleasant.....4
Neutral.....3
Not very pleasant2
Not at all pleasant.....1

30b. For walking at night, would you describe the street lighting in your neighborhoods as...

Excellent..... 4
Good..... 3
Fair..... 2
Poor....., 1

30c. Does your neighborhood have sidewalks?

Yes..... 1
No..... 2

30d. How safe from crime do you consider your neighborhood to be?

Very safe..... 5
Somewhat safe..... 4
Neutral..... 3
Somewhat unsafe..... 2
Very unsafe..... 1

30e. Generally speaking, would you say most people in your neighborhood can be trusted?

Yes..... 1
No..... 2

These last questions are for classification purposes only.

31. Are you or your child/children currently participating in any of the following programs?
(CIRCLE ALL THAT APPLY)

WIC (Special Supplemental Nutrition Program for Women,
Infants and Children) 1
Food Stamps 2
Medicaid 3
TANF (Temporary Aid to Needy Families) 4
Head Start 5
Other (specify) _____

32a. During the last year, have you visited a food bank or food pantry?

Yes 1
No 2 - SKIP TO Q33

32b. If yes, were fruits and vegetables available from the food bank you visited?

Yes 1
No 2

33. Which of the following best describes your age? Would it be...? (READ LIST)

Under 181
18-24.....2
25-343
35-444
45-54.....5
55-606
Over 60.....7
Refused (DO NOT READ)x

34. What is your current marital status? Are you...? (READ LIST)

Married1
Single, never married2
Cohabiting/living together3
Divorced/separated4
Widowed5
Refused (DO NOT READ)X

35. What is the highest level of education that you completed? Is it...? (READ LIST)

1st - 6th grade.....1
6th - 9th grade.....2
10th -12th grade.....3
High school grad/GED.....4
Some university, technical college,
trade school or beauty school
college/vocational school.....5
University graduate 6
Attended graduate school.....7
Completed graduate school.....8
Refused (DO NOT READ).....X

36. Where do you have access to the Internet, if at all? Would it be at...? (READ LIST AND CHECK ALL THAT APPLY)

- Home1
- School.....2
- Work3
- Family or friend's house4
- Community library.....5
- I don't have access to the Internet.....6
- Other (SPECIFY)_____7

(CONFIRM RESPONDENT NAME,
AREA CODE AND TELEPHONE NUMBER;
RECORD ON FRONT PAGE OF SURVEY.)

THAT CONCLUDES OUR SURVEY.
THANK YOU VERY MUCH FOR YOUR PARTICIPATION!

END TIME: _____

CHILDCARE PROVIDER FOCUS GROUP GUIDE

HEALTHY EATING HABITS BASELINE STUDY FOR SNAP

Moderator begins by introducing the concept, process, and purpose of the focus group. She will also lay ground rules for the discussion, explain the purpose of the tape recording equipment, and assure participants that their remarks are confidential in the sense that their names will never be attached to their statements.

***Introduce purpose of group:** The purpose of this group is to discuss information related to the kind of snacks you provide for the children you care for. The group will last about 2 hours. There are no right or wrong answers and your honest answer are very important to our client. (Explain where restrooms are, etc.)*

I. ICEBREAKER

- ◆ Please introduce yourself and tell us a little about the your child care facility, your position, how long have you been in “the business” of child care, a little bit about the children you serve, and the most popular snack you served to your kids last week.

II. GENERAL KNOWLEDGE AND PRACTICES REGARDING SNACKS

- Describe a typical meal and a typical snack time at your center.

Probe: What kind of snacks do you serve now? Why those foods?

- What is the process for deciding what kind of meals and snacks you serve?

Probe: Who makes decisions about meals and snacks? How are these kinds of decisions made at your center?

- How do the children’s attitudes influence what you serve?
- How do the cultural norms of the families you serve influence the kinds of foods served at your center?
- Is there anything you would like to change about the meals and snacks you serve if you had the opportunity?

III. AWARENESS AND PERCEPTIONS OF THE HEALTHY SNACK INITIATIVE

- Who has heard of the Healthy Snack Initiative? (COUNT)
- When we talk about “healthy snacks,” what comes to mind for you?

Probe: What would be the reason for an initiative like this?

- In your opinion, what is the importance of serving fruits and vegetables to young children?

IV. RESPONSE TO POSSIBLE RULE CHANGES

- Right now you have four categories: milk, grains, meat or meat substitute, and fruits and vegetables and you can choose two of those four for snacks. If the State changed the requirement to say that one of those two choices always has to be a fruit or a vegetable, what would your reaction be?
- **(PHOTOSORT 1)** From the photographs that you have, choose a few pairs of menu items that would be an acceptable snack under the new rules that would be realistic for you to serve in your facility?
- What challenges might you face at your center in serving healthier snacks, like fruits and vegetables or whole grains?
- Research shows that there are some challenges associated with serving more fruits and vegetables. What would you guess those challenges are?
- Some of those include food storage, cost and preparation. Let's talk about each of those areas specifically and list some thoughts. **(GO TO FLIP CHART)**
 - Food storage
 - Cost
 - Preparation
 - Other?
- ◆ Where would you purchase the fruits and vegetable?

Probe: What would you buy? Why?

V. HOW DO WE LEARN AND TEACH NUTRITION?

- What kind of background knowledge or training have you had to guide decisions regarding the food you serve to the children?
Probe: What kind of training would you like?
- What would be your preferred way of receiving educational materials from the Texas Department of Agriculture?
Probe: Website? Email? Snail mail? Other?
- How do you currently educate children about nutrition?

Probe: What topics do you teach? (Food pyramid? Fruits & vegetables? Grains? Etc.)

Probe: What kind of activities do you do? Have you recently received, *The Adventures of Zobey* materials from the Texas Department of Agriculture? (These materials include a DVD, a magnet and a children's book.)

Probe: If so, how have you used these materials with the children you serve? Do you plan to use the materials? Would you like more materials like the Zobey materials?

Probe: What specific topics would you like materials for to help educate children about nutrition? What formats would work well for you (children's books or DVDs? Handouts, coloring books with pictures of healthy foods)?

Probe: What kinds of partnerships do you have in the community with other groups with an interest in nutrition, for example, like WIC?

- How do you currently educate parents about nutrition?

Probe: What would parents need to know to “buy in” to these kinds of changes?

VI. CONCLUSIONS

- If you could offer any advice or final thoughts to the people at the Texas Department of Agriculture about the change in the rules about fruits and vegetables, what would you say?

Thank you for your time?

FOCUS GROUP GUIDE FOR Parents

Health Eating Habits Baseline Study for SNAP

I. Introductions

Moderator begins by introducing the concept, process, and purpose of the focus group. She will also lay ground rules for the discussion, explain the purpose of the tape recording equipment, and assure participants that their remarks are confidential in the sense their names will never be used.

- ◆ (Round robin style) Please introduce yourself, tell us how many children you have and their ages. Then tell us a little about yourself like if you work outside the home or go to school. Finally, please complete the following statement: The biggest problem I face when planning meals for my family is _____.

II. General Shopping & Food Preparation

- ◆ Please write down three typical meals you have served your family in the past week.

After everyone writes them down- begin conversation to share and to move into next question.

- ◆ How do you decide what to feed your family on an average day?
 - **Probe:** How do you plan meals? Do you plan your meals ahead of time?
- ◆ How did you learn to feed your family?
 - **Probe:** What did you learn from your family (mother, father, aunts, grandmothers, etc.)?
 - What about from organizations like WIC or from the school meals your children receive?
 - **Probe:** How do you learn new recipes? (Trade with friends? Magazines? Cookbooks? Television show? Etc.)
- ◆ How do the tastes of your children influence what you prepare?
- ◆ How do you think school meals influence your children's eating habits?
- ◆ Do your children help you plan your meals – do they help you shop?

III. Perceptions of “Healthy Foods”

- ◆ What are the healthiest foods you think you prepare for your family? (Moderator list on flip chart in categories: Fruits, Vegetables, Whole Grains, Other)
- ◆ What about milk what kind of milk, does your family drink milk? Probe: what about low fat milk? (For people drinking low fat milk ask if they made a switch and how).
- ◆ There has been a lot in the news lately about whole grains? What are whole grains? Do you feed your family whole grains? Why are whole grains important? (If needed some examples of whole grains include brown rice, whole wheat pasta, oatmeal, whole grain bread.)

Show two loaves of bread one that is 100% whole wheat and one that is whole wheat but not 100%. Ask participants which is the better bread.

- ◆ What do you think are the greatest benefits of feeding our families fruits, vegetables, and whole grains?

Probe: How do your kids respond to “healthy foods?”

III. Challenges to Serving Fruits, Vegetables & Whole Grains

- ◆ What, if any, are the challenges to including healthy foods in your family meals and snack? (Moderator lists “Challenges” on flip chart)
 - **Probe:** How does cost affect your purchases of fruits, vegetables or whole grains?
 - What about the taste, how does taste affect how much you eat fruits, vegetables, and whole grains?
 - Where do you usually purchase your fruits and vegetables? How often do you buy canned vegetables? What about frozen vegetables?
- ◆ What problems do you face, if any, when it comes to preparing or storing fresh fruits and vegetables?
 - How fresh is the produce at your store?
 - **Probe:** Which do you find easiest to prepare, canned, frozen or fresh?
 - **Probe:** How do your children learn about the nutritional value of food?
- ◆ Lately there has been a lot of talk in the news about the value of purchasing vegetables grown close to home. What are your thoughts about that idea? Does your store mark Texas grown produce?

- ◆ How many of you have a farmers market in your community? (Hand count). How many of you have been to the farmers market? (Hand count) How often do you shop at local farmer's market? How does shopping at a farmers market influence how much your family eats fruits and vegetable?
- ◆ How many of you have received vouchers from WIC to shop at a farmers market? How has this influenced your purchases of fresh fruits or vegetables?
- ◆ If you heard tomorrow that they were going to build a new super grocery store around the corner from you and that a new farmers market was opening up close by also, where do you think you would buy your fruits and vegetables. Why?
- ◆ What would make it easier for you to include more fruits, vegetables and whole grains in the meals you prepare for your family?
- ◆ Also in the news lately, there have been many reports about the terrible health problems caused by childhood obesity. What concerns do you have about your own children and their nutritional habits and physical activity habits?
- ◆ How confident do you feel about your children's safety when they play outside in your neighborhood?
 - **Probe:** If not safe, probe: what kinds of things do you do to get your kids out to play and exercise?
 - **Probe:** On a separate but related topic what do you think are the greatest benefits to your child eating a school meal?

V. Field Test of Materials

Champions for Change

Website

Moderator hands out copies of the Champions for Change home page and examples of Champion moms

- ◆ How likely are you to go to a website that offered this kind of information? (Moderator takes hand count of how many think they would go to a website of this type.)
- ◆ What is your initial impression of the website? What do you like or dislike?
- ◆ What other features would you like to see on a website of this type?
- ◆ How many would prefer to get a weekly email with nutrition information that also had a link to the website?

TVADS

Moderator shows both the TV ads from Champions for Change back to back.

- ◆ What is your top of mind reactions to these TV ads?
- ◆ Does the ad make you want to do such and such ie eat more fruits and vegetables, go to the site, turn off the TV.
- ◆ What do you like or dislike about them?
- ◆ How catchy are they? (how likely is it to get your attention?)

Let's Cook with Fruits and Vegetables

Moderator hands out the book *Let's Cook with Fruits and Vegetables*.

- ◆ Off the top of your mind, what is your reaction to this book?
- ◆ Earlier we talked about whether or not we used cookbooks. What are your thoughts about having a book like this?

Moderator passes out *Zobey book and DVD* and asks participants to flip through it as the moderator briefly describes what the book is about.

- -How helpful is receiving books like this from WIC. or your child's school? Do you think your child would watch it?

VI. Conclusions

Moderator begins conclusion by saying the following: Our clients are a group of people who help oversee programs sponsored by the United States Department of Agriculture, like Food Stamps, WIC, Children and Adult Nutrition Programs for child care centers and adult care centers, and so forth. They are very interested in promoting better health for Texans by promoting the idea that we all need to consume more fruits and vegetables.

- ◆ What would you like for them to know about the best ways to encourage or motivate or persuade you to offer more fruits, vegetables and whole grains at school and at home? ?

- ◆ If you could ask them any question in the world, what would you want to ask?

- ◆ In conclusion, what is the biggest thing that will help motivate you or your children to consume healthy foods at home And at school?

Thank you for your time!

AGRILIFE EXTENSION AGENT INTERVIEW GUIDE

Interviewer begins with a description of the project. Including the following:

*We are interested in learning how the target population, **those with an income that is 185% of the FPL or less**, think about fruits and vegetables, as well as learning about their practices around eating fruits and vegetables. **This population includes individuals who participate in WIC, receive food stamps, or whose children receive free or reduced meals at school.** I'd like to ask you some questions about the work that you may have done in your area.*

- May I please have your complete contact information and your title?
- How long have you **been a County Extension Agent**?
- Will you please tell me about the **county** you serve and what the population there is like?

Probe: What % of residents live in poverty? What is the racial/ethnic make-up of the county?

- What type of fruit and vegetable education programs do you provide to low-income populations?
- In addition to programs offered by AgriLIFE Extension, what other fruit and vegetable education programs are available to low-income audiences in your county?
- Based on your experience, what (if any) challenges have you faced in implementing fruits and vegetable education programs to low-income populations?
- In your opinion, is fruit and vegetable education a priority for this population?

Probe: Do they have other needs that you see as more pressing? If so, what are those needs?

- In your experience, what works the best in terms of educating this population on how to eat more fruits and vegetable?
- What have you learned about the barriers **low-income populations** face when it comes to eating more fruits and vegetables?
- What do you see as the **greatest need surrounding fruits and vegetable education** for this population?

Probe: Have you addressed this concern in any of your training? Do you know of anyone who has? What were the results/ findings from that training?

- What programs do you partner with in your area?

Probe: Do you partner with the WIC program in your area? How do you partner with them?

(if yes, see questions below)

- How often do you work with WIC participants?
- Have you heard that WIC is planning to make changes to the WIC food package? If so, what have you heard?

WIC is planning to make changes to the WIC food package next year. The new WIC food package will include fruits and vegetables, and whole grains options such as brown rice, whole wheat bread, oatmeal and corn tortillas. Participants over age 2 will only be able to receive low fat milk (2% or less). In order to receive these additional options participants will receive less milk, cheese, juice and eggs.

- Which of these changes do you think will be the most difficult for WIC participants to make?
- How would you suggest educating participants about that change?

- Have you educated WIC participants on that topic in the past? What works well with the population?
- Do you think you will get questions from WIC participants about the changes to the WIC food package?
- What kind of materials or what kind of topics do you need materials on in order to help WIC participants with their questions or in making these dietary changes?

FOOD BANK DIRECTOR INTERVIEW GUIDE

Name:

Food Bank:

Position:

1. How many people does your food bank serve?
2. To how many areas does your food bank distribute?
3. What barriers does the food bank face in terms of receiving fruit and vegetable donations?
 - a. In terms of distributing fruits and vegetables?
4. Does your food bank distribute locally-grown produce?
5. What barriers does the food bank face in terms of receiving (and distributing) locally-grown f/v donations?
6. How do you suggest increasing the amount of fruits and vegetables available in soup kitchens and food pantries?
7. What do you hear from your clients about getting enough fruits and vegetables?
8. What barriers have you noticed in terms of people consuming fruits and vegetables?
9. What do you think would enable your clients to eat more fruits and vegetables?
10. What, if any, nutritional campaigns, at the local, state, or national level, do you feel have been effective?

11. What types of nutrition-focused classes does your food bank offer?
12. Do you have classes that include information on offering more fruits and vegetables?
13. Do any of your nutrition-focused classes include information on locally-grown fruits and vegetables?
14. Do any of your nutrition classes include information on gardening?
 - a. How often are they offered?
 - b. Where are they offered?
 - c. How many people usually attend?
 - d. What are the demographics of the people who attend (e.g. age, gender, ethnicity)?
 - e. Where are the classes held?
 - f. What types of incentives are offered for attending classes?
15. How are the classes usually received?
 - a. Which are most/least popular?
 - b. Which have been most/least effective?
16. What programs do you partner with in your area?
17. Do you partner with the WIC program in your area? How do you partner with them?

18. When you talk to San Antonio Food bank –I already have this info –we spoke with them as part of a partner focus group with Burson Marsteller.

(if yes, see questions below)

- a) How often do you work with WIC participants?
- b) Have you heard that WIC is planning to make changes to the WIC food package? If so, what have you heard?

WIC is planning to make changes to the WIC food package next year. The new WIC food package will include fruits and vegetables, and whole grains options such as brown rice, whole wheat bread, oatmeal and corn tortillas. Participants over age 2 will only be able to receive low fat milk (2% or less). In order to receive these additional options participants will receive less milk, cheese, juice and eggs. (I am attaching a handout in case you need it.)

19. Which of these changes do you think will be the most difficult for WIC participants to make?
20. How would you suggest educating participants about that change?
21. Have you educated WIC participants on that topic in the past? What works well with the population?
22. Do you think you will get questions from WIC participants about the changes to the WIC food package?
23. What kind of materials or what kind of topics do you need materials on in order to help WIC participants with their questions or in making these dietary changes?
24. Do you have access to the internet?

WIC NUTRITIONAL AND REGIONAL NUTRITIONIST INTERVIEW GUIDE

Interviewer begins with a description of the project. Including the following:

*We are interested in learning how the target population, **those with an income that is 185% of the FPL or less**, think about fruits and vegetables, as well as learning about their practices around eating fruits and vegetables. **This population includes individuals who participate in WIC, receive food stamps, or whose children receive free or reduced meals at school.** I'd like to ask you some questions about the work that you may have done in your area.*

- May I please have your complete contact information and your title?
- How long have you been a WIC Nutrition Educator or a Regional Nutritionist?

For Regional Nutritionist Only

- Will you please tell me about a day in the life of a Regional Nutritionist?

Probe: Who are the typical clients that you interact with on any given day?

For WIC Nutrition Educator Only

- How many clients do you serve?
- What changes have you noticed in your clients' level of knowledge about nutrition in the past 5 years?

CONTINUE TO BOTH

- What type of education do you provide about preparation and consumption of fruits and vegetables?
- In addition to programs you offer, what other fruit and vegetable education programs are available to low-income audiences in your service area?
- Based on your experience, what (if any) challenges have you faced in implementing fruits and vegetable education programs to low-income populations?
- In your opinion, how highly does this audience prioritize or value fruit and vegetable education?

Probe: What other needs do they have that may be more pressing?

- In your experience, what works the best in terms of educating this population on how to eat or prepare more fruits and vegetable?
- What have you learned about the barriers **low-income populations** face when it comes to purchasing, preparing or eating more fruits and vegetables?
- What do you see as the **greatest need for improving fruits and vegetable education** for this population?

Probe: How have you tried to address these concerns in any of your trainings? Who else do you know who has tried to address these concerns? What were the results/ findings from that training?

As you know, WIC is planning to make changes to the WIC food package next year. The new WIC food package will include fruits and vegetables, and whole grains options such as brown rice, whole wheat bread, oatmeal and corn tortillas. Participants over age 2 will only be able to receive low fat milk (2% or less). In order to receive these additional options participants will receive less milk, cheese, juice and eggs.

- Which of these changes do you think will be the most difficult for WIC participants to make?
- How would you suggest educating participants about that change?
- How have you educated WIC participants on that topic in the past? What do you think works well with the population to address food package changes?
- What questions do you anticipate from WIC participants about the changes to the WIC food package?
- What kind of materials or what kind of topics do you need materials on in order to help WIC participants with their questions or in making these dietary changes?
- Last word:

Appendix D

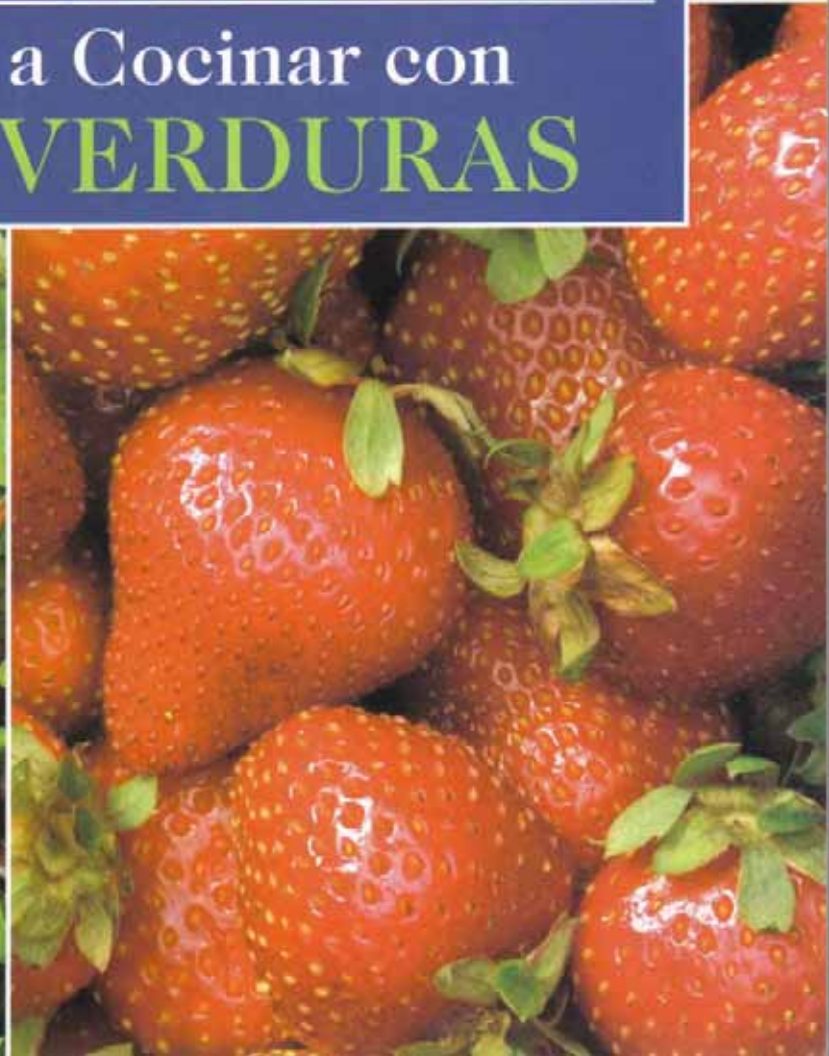
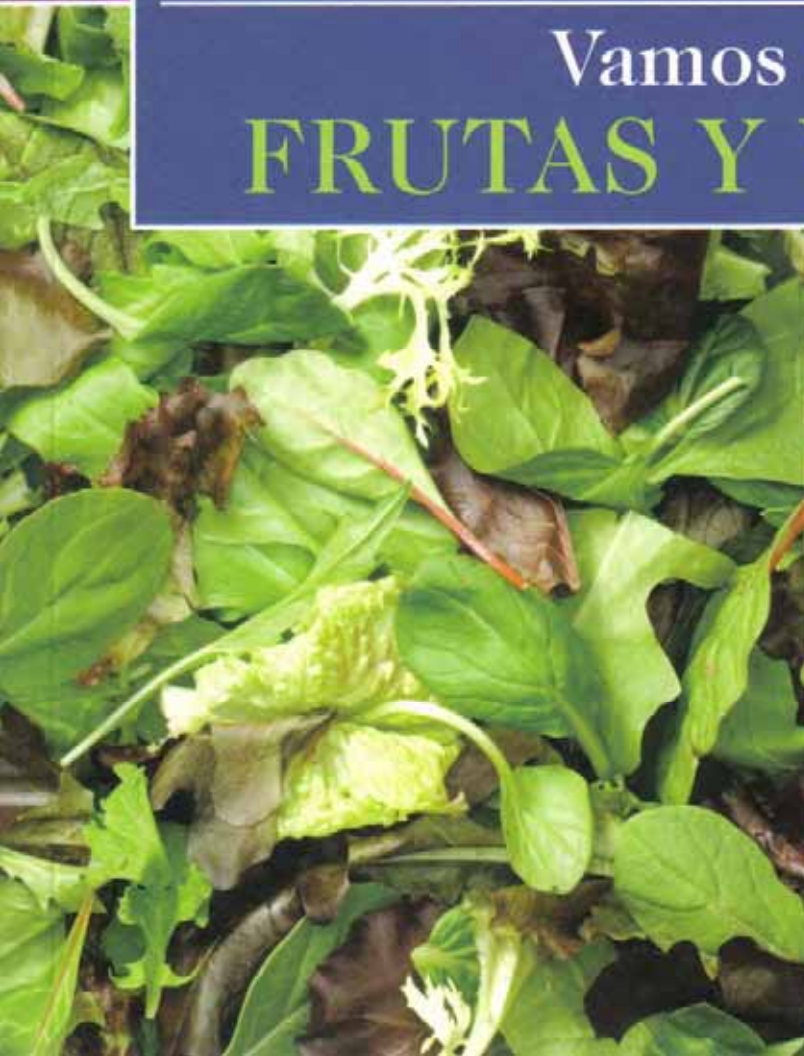
Focus Group Materials



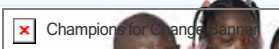


Let's Cook with
FRUITS & VEGETABLES

Vamos a Cocinar con
FRUTAS Y VERDURAS



Network for a Healthy California
Champions for Change



**We are moms.
We are dads.**

**We are concerned parents.
We are just like you.**



BE A CHAMPION ▶

MY KITCHEN ▶

BE ACTIVE ▶

OUR COMMUNITY ▶

RESOURCES

We are Champions for Change!

We want the best for our kids. We want them to be healthy. We want to protect them from serious health problems like obesity, type 2 diabetes, heart disease, stroke, and certain types of cancer.

So we are making healthy changes in our kitchens, homes, schools, and neighborhoods. We make the rules now. Rules like:

1. [Eat more fruits and vegetables.](#)
2. [Be more active.](#)
3. [Speak up for healthy changes.](#)

You do not have to be a health expert to protect your child from serious health problems. But you do need to be committed to helping your family eat more fruits and vegetables and be more physically active.

Change is good. Healthy eating and active living are starting to happen in families and communities everywhere. It is not always easy but we are making it happen. And so can you.

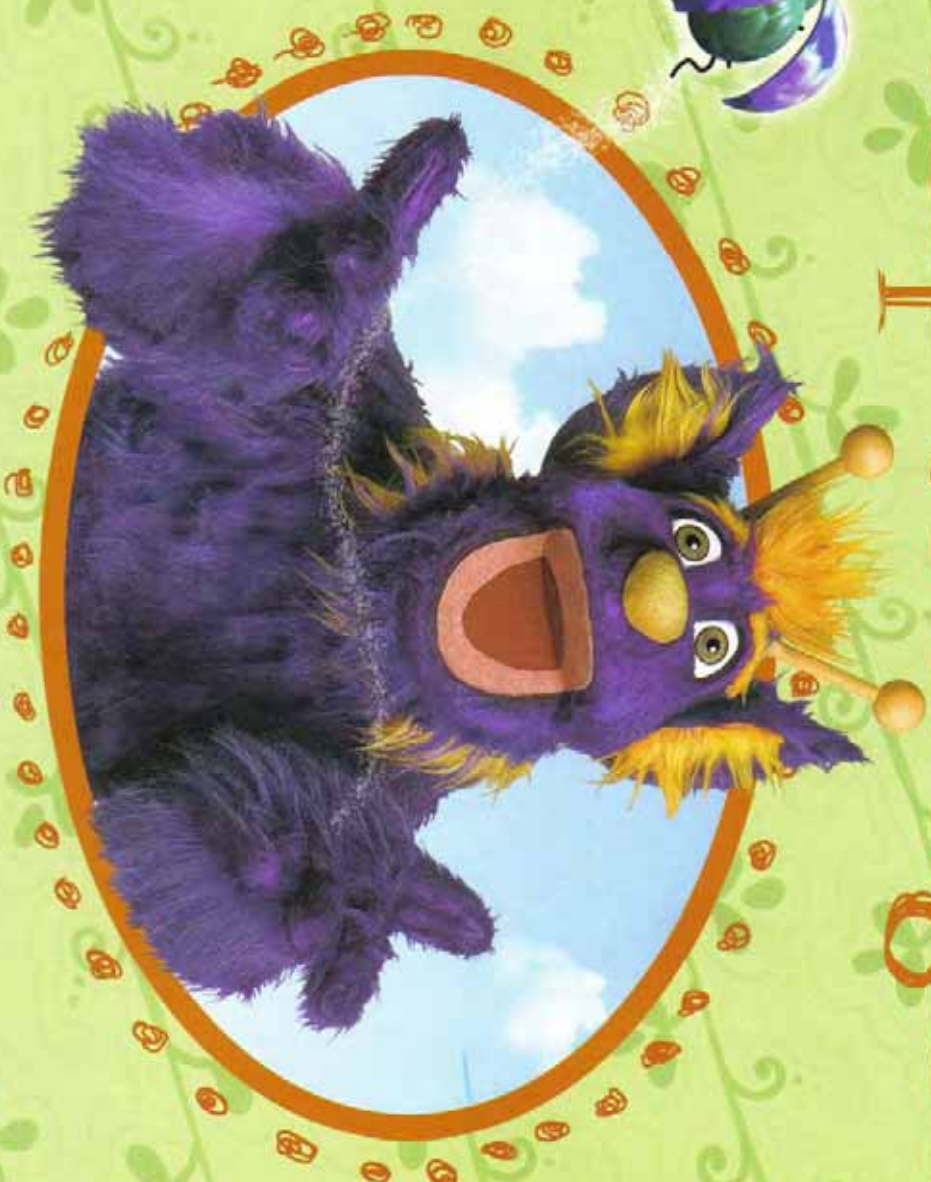
Become a [Champion for Change](#). And become a champion for your family's health.

**What's
New?**



the Adventures of Zobey

A Trip to Bugland



Las Aventuras de Zobey

Un viaje a Insectolandia